



CMS 2.0

System Administrator's Manual
For V2.0.01 Version

About This Manual

Target Audience

This manual is intended for **System Administrators** who are responsible for installing and setting up CMS 2.0 surveillance system. The reader is expected to know the fundamentals of IP surveillance system integration and to own the administrative privileges to achieve all the configuration tasks.

You may also check video management system section on ACTi corporate website:

<http://www.acti.com/CMS2> for updates or release information about this software and document.

Content Overview

This manual provides information needed for planning the installation, installing, setting up the system and configuring the video streaming devices. Its main content consists of the following three sections:

- **Getting Started** provides the preparatory knowledge you should study before starting installation, such as system requirements and license registration procedures.
- **Log in to the System** explains how to log in to the system right after a successful installation.
- **System Setup** gives instructions on administrative tasks such as centrally managing the NVR servers and the devices, setting up event rules, customize the live view layouts or managing system storage. For each major task, you will be given a brief introduction of operation principles, step-by-step instructions, and a simple tip to check if you have done it correctly.

Technical support

If you have any questions during system installation, please feel free to contact our engineers via our **Customer Help Desk** platform <http://www.acti.com/CHD>.

Conventions Used in This Manual

The following are typographic conventions used in this manual:

- **Bold:** Bold typeface is used for a keyword, major functions of CMS, or a title of a section/column.
- *Italic:* Italic typeface is used for a filename or location path.
- Underlined: Underlined typeface is used for a document name or hyperlink.
- “**“Bold”**”: Bold interface enclosed in double quotation marks indicates the name of a button, a menu or a choice item.

Some notices are placed within the following boxes; each type of the box indicates different purposes or levels of importance for system:

Important Notice

The content within this box is an **important notice**. This notice is important for you to get certain functions to work properly, or to prevent from certain potential problems that may damage your system. Make sure you read this notice and follow the instructions.

Note

The content within this box is a **note**. A note is some necessary information you need to know about the action you are currently taking, like what will happen after you follow or do not follow certain procedure.

Tip

The content within this box is a **tip**. A tip gives you an alternative method to easily or quickly achieve an objective, usually for specific conditions.

Related Documentation

Since this manual focuses on how to accomplish the tasks for system installation and configurations, there is very limited information about operation-wise directions for **End Users** who will be operating CMS server system. To obtain the instructions on use of CMS applications such as monitoring and playback, please download the latest [ACTi CMS 2.0 User's Manual](http://www.acti.com/CMS2) from ACTi Corporation website via <http://www.acti.com/CMS2>.

Legal Notice

Disclaimer

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- The English version of this document is the official one for all purpose. All the translated versions are provided as a convenience. Any discrepancies or differences created in the translations of any other languages are not legally binding.

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Overview

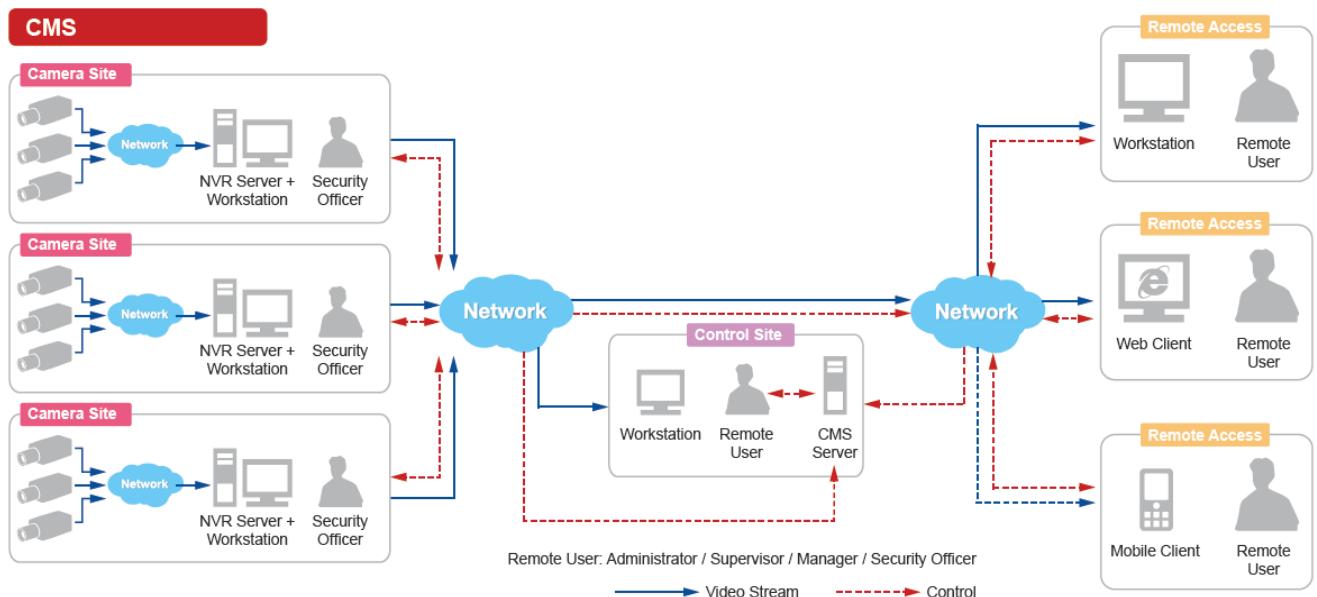
Designed for large-scale multi-site video surveillance solution, Central Management System 2.0 (hereafter referred to as **CMS**) software allows its user the full capabilities to monitor and manage multiple **Network Video Recorders** (NVR) via network. It also possesses full functionalities to manage not only NVRs but devices (network cameras, video encoders, etc.), users and events.

CMS Server / Client Architecture

CMS is a typical web-based server/client system. In a multi-site surveillance solution, **CMS Server** serves as a management command center; a **Client** makes requests of monitoring video streams or playing recordings to **CMS Server**, and **CMS Server** will pass this request to the involved **NVR Server** to send data/video stream to the **Client**. **CMS Server** starts automatically as soon as the **Server computer** (where it is installed) boots up, and operates in the background without requiring login by administrator. It would provide services over the TCP/IP network to multiple **Clients** upon request through HTTP Protocol.

There are two types of **Clients** in CMS system: **Web Client** and **Workstation Client**. A user, connecting from whether web browser or workstation, will be provided with the same user interface and be CMS functions.

- **Web Client:** the web version of interface to access **CMS Server** without need of installing any client program to become a client. Logging in to the **CMS Server** is as simple as visiting a website through the browser.
- **Workstation Client:** the client application making accessing **CMS Server** free from the use of browser .The workstation includes a set of programs that provide interface between users and the **CMS Server**.



System Installation Check List



| Pre-installation | | | |
|------------------|--------------------------|---|---|
| Item | Task | Description | Reference |
| 1 | <input type="checkbox"/> | Prepare software license | Please purchase the license from your system supplier and get the license information before activation. How Dose License Activation work on page 21 |
| 2 | <input type="checkbox"/> | Prepare the server computer | Make sure the computer's hardware spec, operation system and browser version are compatible with CMS system requirements. System Requirements on page 14 Pre-requisites on page 15 |
| 3 | <input type="checkbox"/> | Assign a fixed IP for server computer | The server computer should have a fixed IP to be used by CMS server. |
| 4 | <input type="checkbox"/> | Set up Active Directory (Optional) | To add users through the Active Directory service, please make sure an Active Directory server is available on your domain. |
| Installation | | | |
| Item | Task | Description | Reference |
| 5 | <input type="checkbox"/> | Install ACTi CMS 2.0 server software | Follow the instructions to install the software on server computer. Server Installation on page 17 |
| 6 | <input type="checkbox"/> | Check if the installation is successful | Log in to CMS to check if you can see the login page. (On server computer, type http://localhost:[port number] in browser's URL bar). Log in to the System on page 26 |
| 7 | <input type="checkbox"/> | Activate the license (Optional) | Activate your license key to get your required number of channels ready for adding devices. |
| System Setup | | | |
| Item | Task | Description | Reference |
| 8 | <input type="checkbox"/> | Connect external devices | Attach external devices such as the joystick, speakers or microphone to the client computer. Joystick on page 70 |
| 9 | <input type="checkbox"/> | Create User Groups & Accounts | Configure user group permissions and create required user accounts. Manage Users on page 32 |
| 10 | <input type="checkbox"/> | Add NVR source to CMS server | Add NVR servers and devices, and configure their settings. Add an NVR on page 32; Configure NVR / Devices Settings on page 42 |
| 11 | <input type="checkbox"/> | Configure Email settings | Fill in the Email properties and test if CMS server succeeds in sending emails to the test email address. This step is necessary if you will use this service for event handling. How to Setup SMTP Settings for Event Rules on page 48; |

| | | | | |
|----|--------------------------|-----------------------|-------------------------|--------------------------------------|
| 12 | <input type="checkbox"/> | Configure Event rules | Set up the event rules. | How to Edit an Event Rule on page 44 |
|----|--------------------------|-----------------------|-------------------------|--------------------------------------|

Live View Setup

| Item | Task | Description | Reference |
|------|--------------------------|------------------------|---|
| 13 | <input type="checkbox"/> | Create Views for users | Create views and set patrols. Customize Views on page 54 |

Backup System Settings

| Item | Task | Description | Reference |
|------|--------------------------|---------------------------------|---|
| 14 | <input type="checkbox"/> | Create a system settings backup | Create a backup file of current system settings for future re-installation or in case of critical system failure. Back up System Data on page 73 |

Post-installation Validation

| Item | Task | Description | Reference | |
|------|--------------------------|---|---------------|---|
| 15 | <input type="checkbox"/> | Check Live View and monitoring-related operations | User's Manual | Make sure if the user is able to see live view with pre-defined Views and perform basic operations (e.g. PTZ controls, sending out audio or watching instant playback). |
| 16 | <input type="checkbox"/> | Examine Event Handling rules | | Check if the expected actions (e.g. pop-up windows, beep alert, email notification, etc) are triggered by events. |
| 17 | <input type="checkbox"/> | User Access | | Make sure the user can access CMS with given account/password, and perform operations based on given user rights. |
| 18 | <input type="checkbox"/> | Playback | | Make sure the user can perform playback and video search, and the export function can generate viewable files to designated folder. |

Getting Started

System Requirements

The performance of CMS is largely determined by the computer hardware capability. The table below provides basic guidelines for selecting proper hardware (*1). The **Minimum Requirement** will provide acceptable performance for systems, for a system that has more than 1600 channels or more than 16 live view channels should satisfy **Recommended Requirement** for good performance. You can make use of the utility **PC Selector** available on www.acti.com/pcselector to select proper PC hardware in just a few clicks.

| PC Spec | Display Mode | Live Layout (*2) | Number of Channels | |
|-------------------------|--|------------------|---------------------------|-----------------------|
| | | | 1-16,00 | 1,601-unlimited |
| CPU | Server PC+ | 1-16 | Intel Core 2 Quad 2.4 GHz | Intel i5 2.4 GHz |
| | Local Client | 17-100 | Intel i5 2.4 GHz | Intel i7-920 2.67 GHz |
| | Server PC | No Live View | Intel Core 2 Quad 2.4 GHz | Intel i5 2.4 GHz |
| | Remote | 11-16 | Intel Core 2 Quad 2.4 GHz | Intel i5 2.4 GHz |
| | Client PC | 17-100 | Intel i5 2.4 GHz | Intel i7-920 2.67 GHz |
| RAM | 4GB | | | |
| Operation System | 32/64 bit: Windows 7, Windows Server 2008, Windows Server 2003 SP2, Windows XP Professional SP3 (*3) | | | |
| Browser | Microsoft Internet Explorer 8.0 and 9.0 | | | |
| Network | Ethernet (1000 Bas-T recommended) | | | |
| Display | Minimum Resolution: 1024 X 768 or higher | | | |

*1 These specifications are based on following camera settings:

Single stream mode → 1280x1024, 3Mbps, 18fps, MPEG-4

Dual stream mode → 1280x1024, 3Mbps, 18fps, H.264 (recording);

640x480, Quality: 100, 18fps, MJPEG (live view).

*2 Live view for multiple channels require good hardware for smooth performance. If your live view performance is not satisfactory, please reduce the number of channels viewed at the same time, and use **Layout Patrol** to scan through all the channels or views instead.

*3 Please make sure your operation system is fully patched with the latest service packs.

Pre-requisites

Please preview these prerequisites below and make sure they are met before installation:

1. Upgrade all the NVR servers

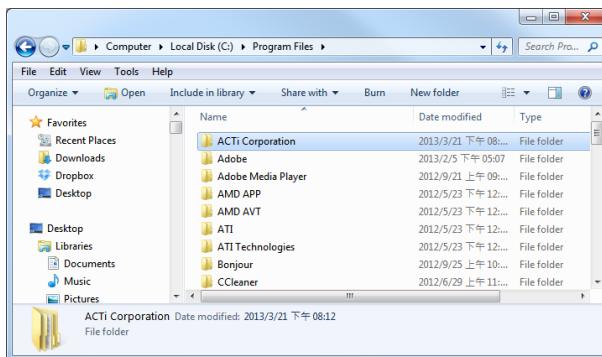
Please upgrade all the NVR 3.0 servers to the latest version.

2. Suitable System Specifications

Ensure that the server computer meets the minimum system requirements.

3. Uninstall Previous ACTi NVR or CMS Products

As ACTi NVR server or previous CMS server software (CMS1.X) cannot co-exist with CMS 2.0 server on the same computer, please uninstall their main program and patches from **Windows→ Control Panel** before installing CMS 2.0. Please also manually delete the program folder. By default, this folder **ACTi Corporation** is under **C:\Program Files**.

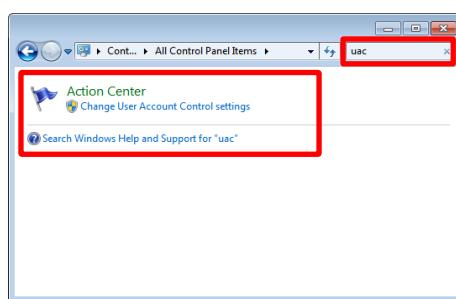


4. Turn Off UAC in Windows

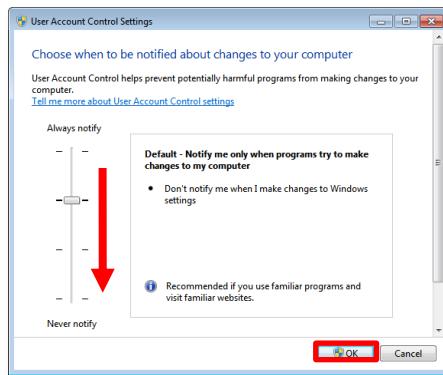
UAC (User Access Control) is a security setting that restricts access in Microsoft Windows Vista and Windows 7. You must disable UAC before installing NVR in Windows Vista and Windows 7, for the installation of application components and certain program features would be interrupted by this security rule. You may disable UAC through Windows control panel.

Disable UAC in Windows 7

1. Go to **Windows Control Panel**, type “UAC” in search box.
2. Click “Change User Account Control settings”



3. Move the slider to “Never notify position”, and then click “OK”. You will have to restart the computer for this change to take place.



Disable UAC in Windows Vista

1. Go to **Windows Control Panel**, click “**User Account and Family safety**”.



2. Select the account, then “**Turn User Account Control on or off**”.
 3. On the “**Turn on User Account Control (UAC) to make your computer more secure**” window, uncheck the “**Use User Account Control (UAC) to help protect your computer**”. Click on the “**OK**” to apply, you will have to restart the computer for this change to take place.

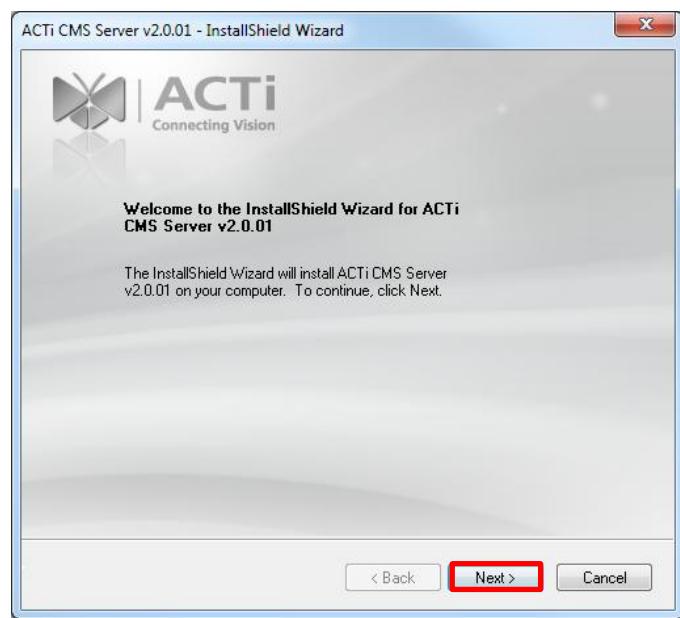
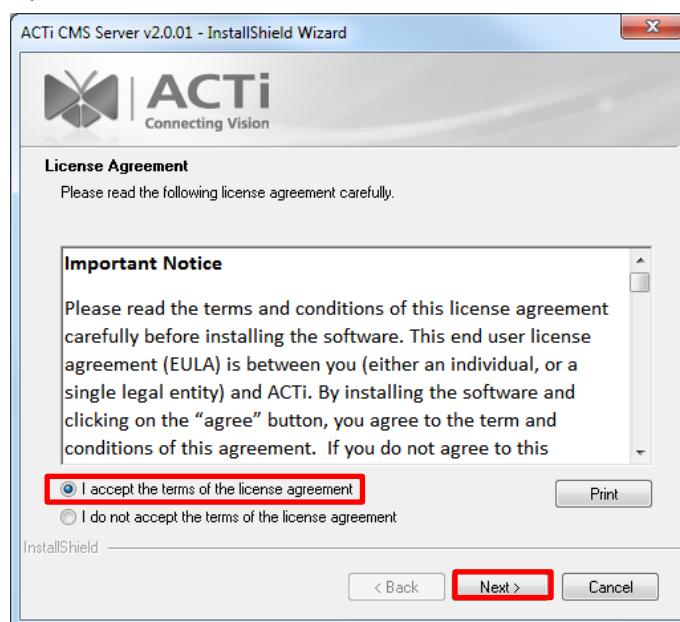


Server Installation

The server program installation is as easy as 1-2-3 by following the installation wizard's instructions. The server would start its service right after installation completes, without the need to restart the server computer.

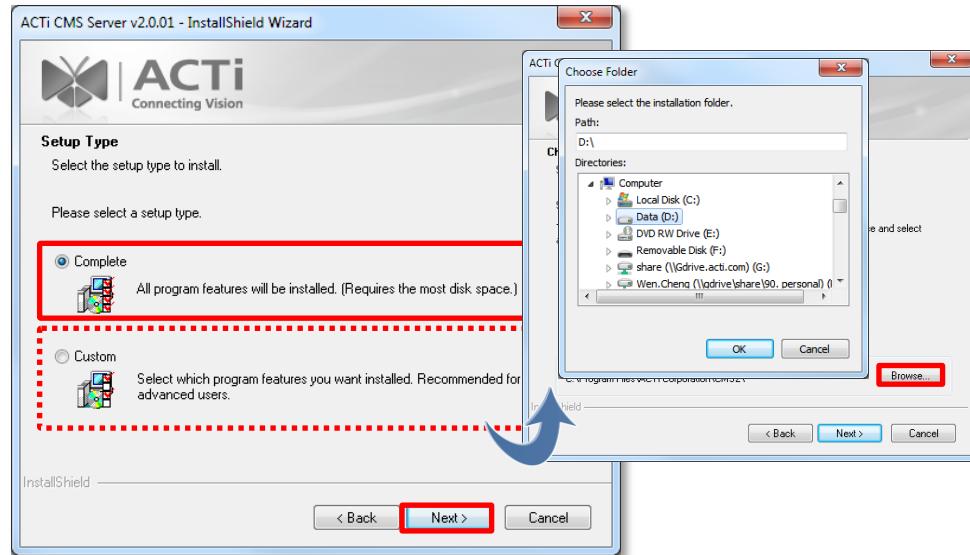
Install the Software

1. Execute "ACTi_CMS_Server_v2.0.01.22.exe" installation application.
2. Follow the onscreen instructions of **Install Shield Wizard**, accept the license agreement and proceed.

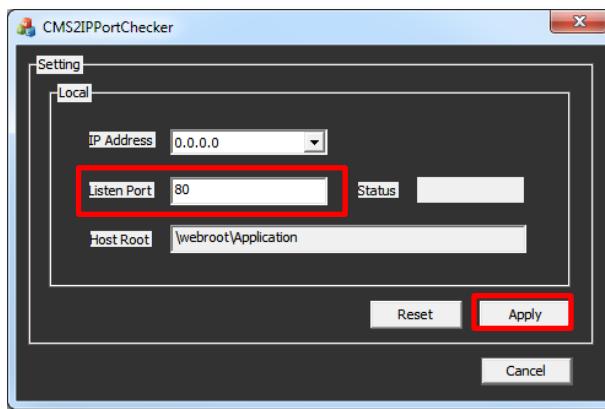


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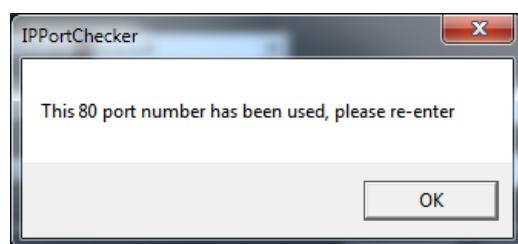
When selecting **Setup Type**, the default “**Complete**” will have the program installed on default **C drive**, you may select “**Custom**” to choose another program location.



- The **IP Port Checker** will pop up to confirm the CMS port number. The installation program will use **80** as default. You may enter another available port number in “**Listen Port**” field and click “**Apply**”.

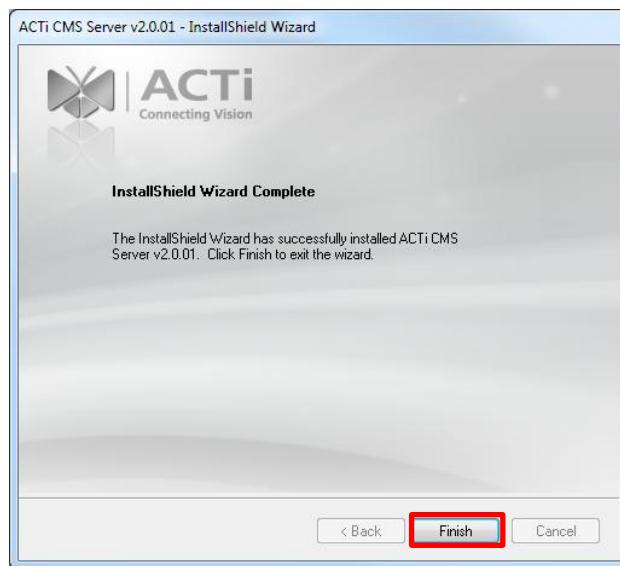


You may just click “**Apply**” if you are not sure whether this port has been taken or not. If the port is being used by another service, you will be asked to input another available port number.



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4. As the server port is confirmed, the installation process is done, click “Finish”.



5. After the installation completes, connect to <http://localhost:port number> with Internet Explorer browser, you will see CMS Login page.

Note

If IIS Web Server has been installed on the computer and you are asked to restart the computer during installation process, please

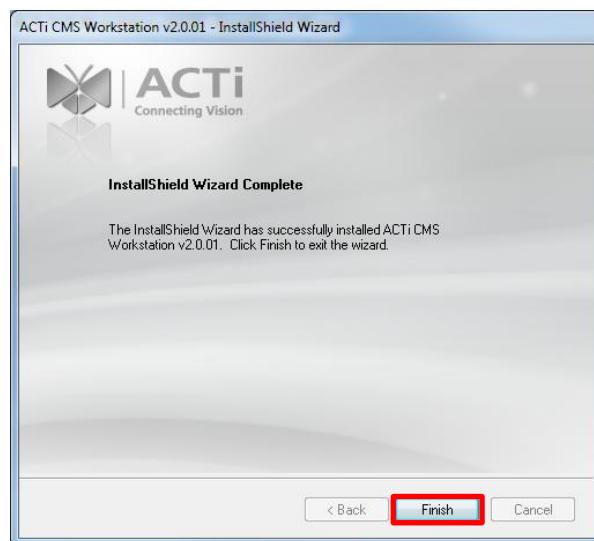
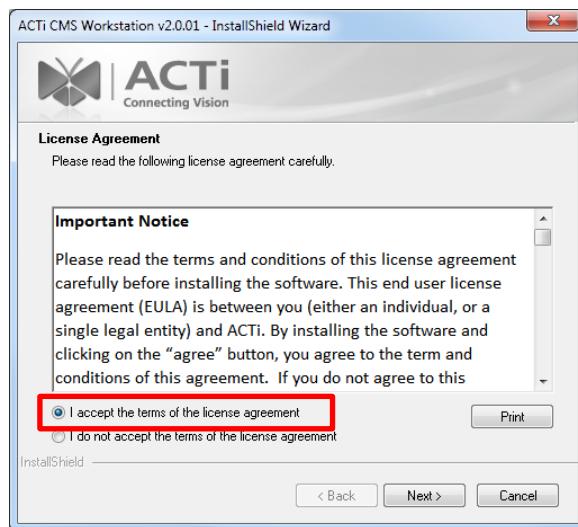
1. Choose Yes, I want to restart my computer now. to restart right away.
2. After the computer reboots, this install shield will automatically continue the installation.

Workstation Installation

CMS2 Workstation provides interface between users and the NVR server. It may be installed on the same computer with the server or on a separate computer with internet access to CMS server.

Install the Software

1. Execute “**ACTi_CMS_Workstation_Install_v2.0.01.exe**” installation application.
2. Follow the onscreen instructions of Install Shield Wizard, accept the license agreement and proceed.



3. After the installation completes, double-click the shortcut  on desktop to execute the application.

License and Activation

In CMS system, the maximum number of channels is **unlimited**; your required number of channels should be licensed and activated before adding the devices to the system. To get the license, you may contact ACTi sales representatives to purchase the licenses and obtain the **License Key**. Upon the activation of license with the **License Key**, the channels will automatically become available.

Please note:

- The license is cumulative and perpetual.
- The license is not version-specific, software version upgrading will not influence the existing license you have activated on NVR server.

How Does License Activation work

License activation is the process of unlocking the channels on CMS server with the received **License Key**. **License Key** is a serial number delivered as a printed card or by email after the purchase is carried out. During license activation, your **License Key** is matched against the MAC address of the Network Interface Card (NIC) on CMS server computer. Once this license key is used by the computer with given MAC, it cannot be activated with another MAC. This matching record will be stored on the activation database. If your computer has more than one network cards, CMS server will detect them and provide you a dropdown list to select from.

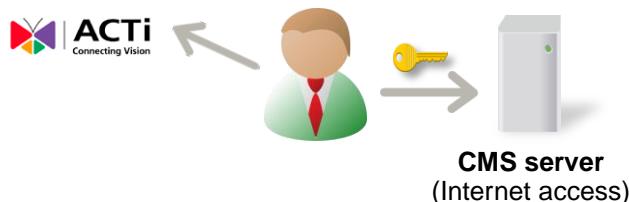
How to Activate the Licenses

There are two ways to activate the licenses depending on your CMS server network condition:

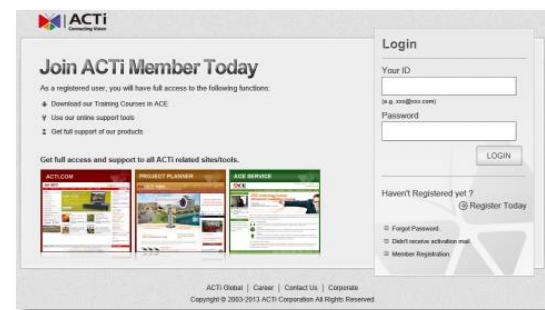
Online Activation

If there is available Internet access your CMS server computer, you should take online activation.

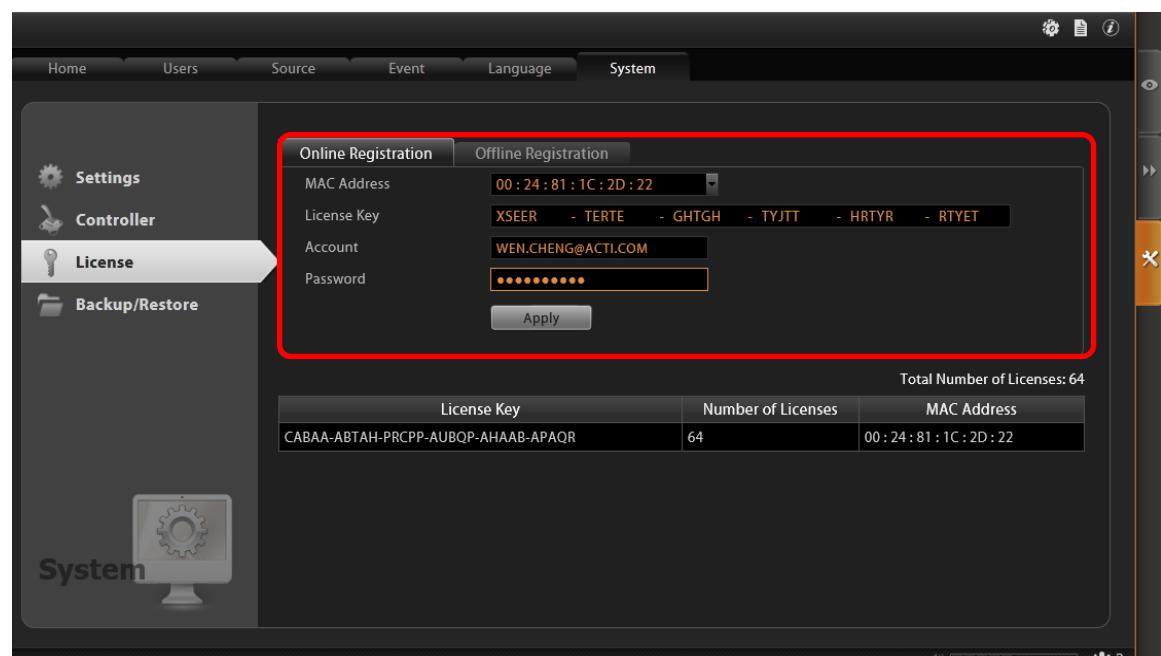
- 1 Purchase licenses from ACTi, get the **LICENSE KEY**
- 2 On CMS2 server, input the **LICENSE KEY** to activate the license directly.



Step 1: Membership ID in ACTi Member Center is required for activation. Register one for free at <http://member.acti.com/>

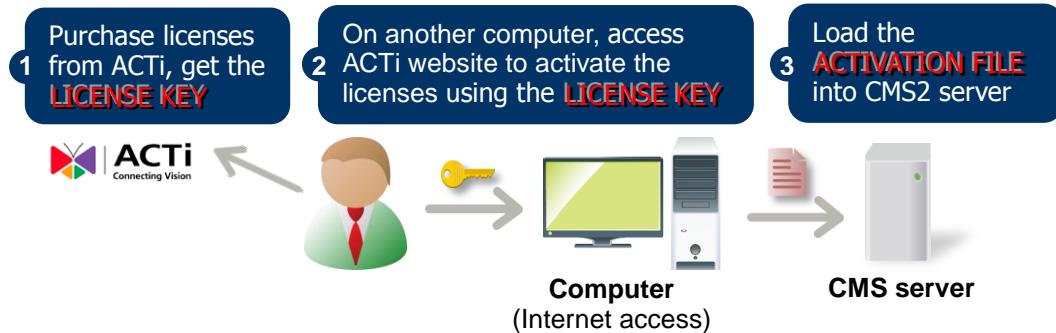


Step 2: Log in CMS server, go to **Setup** page → **System** tab → **License** → “**Online Registration**”. Select the **MAC Address**, enter your **License Key**, member **Account** and **Password**, and then click “**Apply**”. CMS server will connect to the activation database via Internet to register the license key, and unlock the channels.

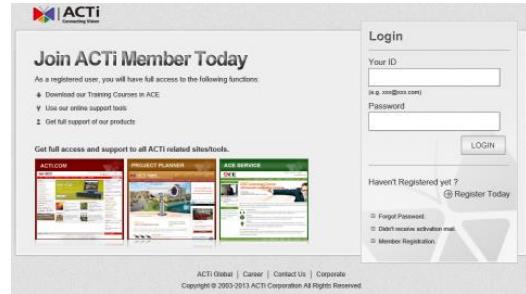


Offline Activation

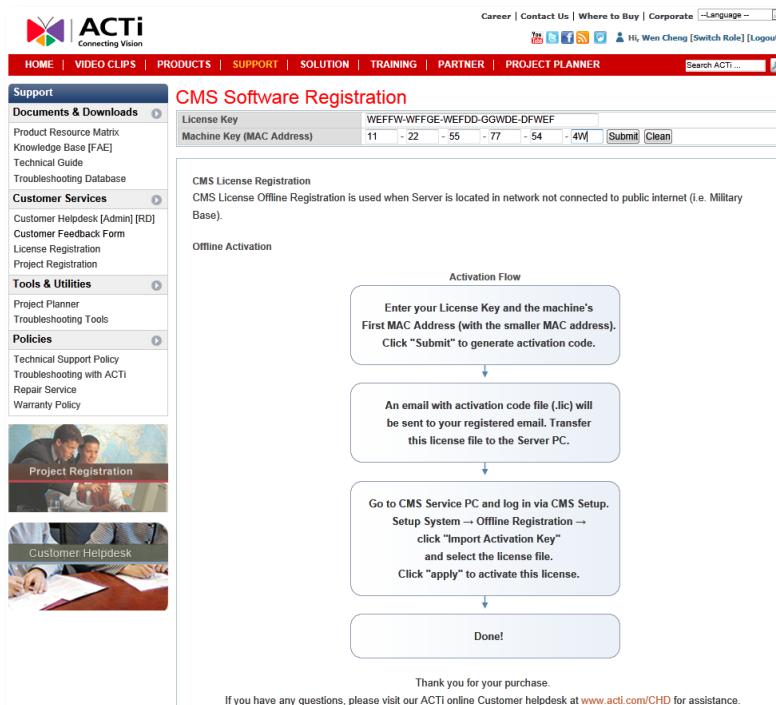
Offline activation does not require Internet access for CMS server. It is used when CMS is located in a network not connected to public Internet (e.g. in a restricted military base). You will need to get an activation file (**AUL.lic** file) from another computer and transfer it to CMS server computer.



1. Membership ID in **ACTi Member Center** is required for activation. Register one for free at <http://member.acti.com/>

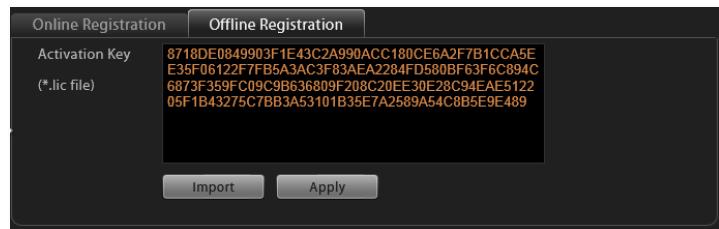


2. Access http://www.acti.com/support/LicenseMgt/CMS_registration.asp, enter the **License Key** and the **MAC address** of CMS server computer, click “**Submit**”. An email with activation code file (**AUL.lic**) will be sent to your registered email account.



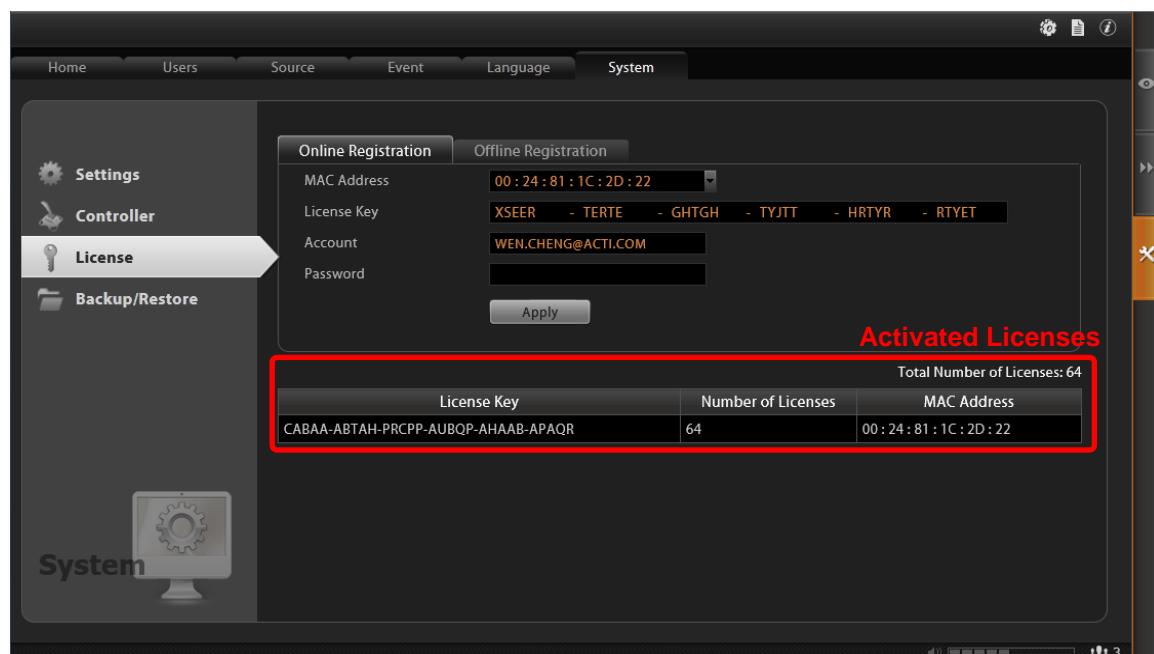
The screenshot shows the CMS Software Registration page with a sidebar and a main content area. The sidebar includes links for Support, Documents & Downloads, Customer Services, Tools & Utilities, and Policies. The main content area has sections for CMS Software Registration, CMS License Registration, and Offline Activation. The Offline Activation section details the steps: Enter License Key and MAC Address, Click "Submit", Receive activation code via email, Transfer license file to CMS Service PC, and Apply license on CMS Setup. A "Done!" button is at the bottom.

3. Log in CMS server from local or via web client. Go to **Setup** → **System** tab → **License** → “**Offline Registration**” → click “**Import**” and upload the license file (**AUL.lic**). Click “**Apply**” to activate this license.



Verify Your License

Once your license is successfully activated, the license information will be shown on **License** page.



Important

The license data will be erased once CMS server is uninstalled. Be sure to retain your license key information in a safe place because you may need to reinstall the software. After the software is uninstalled, you should contact **ACTi Customer Help Desk** <http://www.acti.com/CHD> to clear the original registration data in our database, and then you may activate the license again.

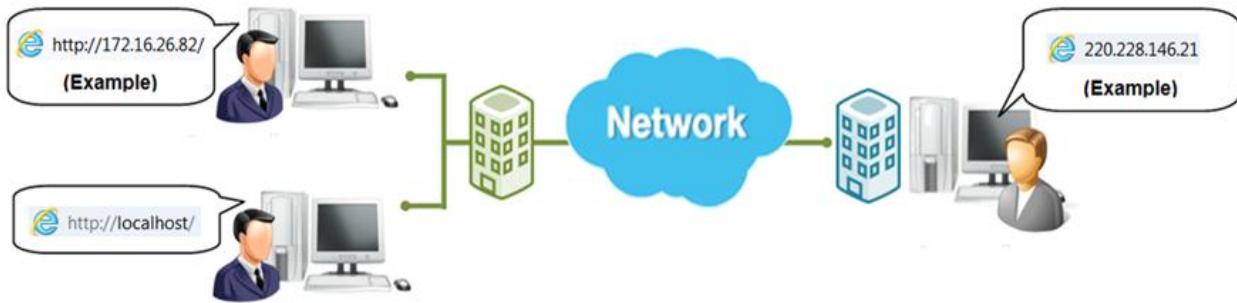
Tip

How to find MAC Address

1. Click **Windows Start**, in the run box on **Start** menu, input “**cmd**”.
2. Execute the **cmd** program, and input the command “**ipconfig /all**” or “**getmac**”
3. The MAC address will be referred to as the **Physical Address**, made up of 12 characters e.g. **00-1E-65-FE-8E-98**

Log in to the System

Access CMS via Internet Explorer



From Server Computer Using Local Client

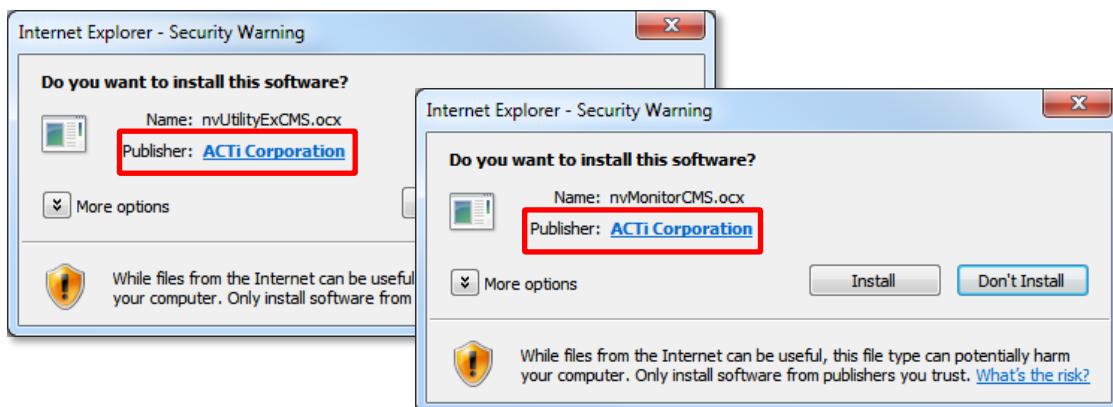
Open Internet Explorer. If your computer is where CMS server is installed, type <http://localhost/> or the computer's ip address in URL box.

From Remote Client Computer

A remote client refers to any client using a computer over WAN or LAN other than server computer. If you are connecting to a CMS server as a remote client, please type server computer's ip (e.g. local network ip: <http://172.16.26.217> within LAN; public IP <http://220.228.146.21> or domain name <http://cms.acti.com> over WAN) in URL box. If the port number is **80**, you can omit it when typing the address.

Accept ActiveX Controls Installation Requests

CMS interface requires the add-on ActiveX Control components, please make sure browser's security settings allow ActiveX controls to be downloaded and installed. When your browser asks if you allow ACTi Corporation's add-on components to run, please allow them.

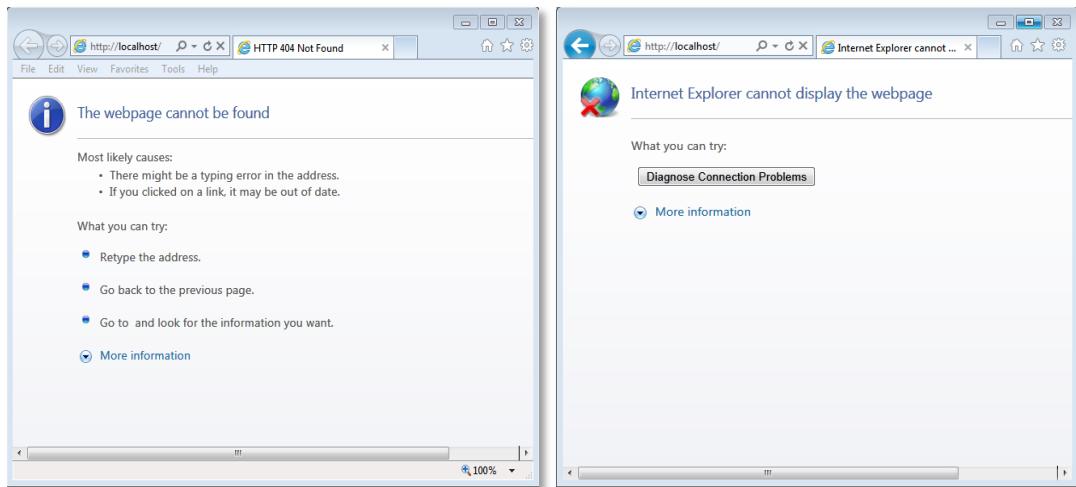


Login Failure Troubleshooting

Once you confront with problems accessing NVR server, refer to the possible conditions below and follow the instruction to solve your issues.

Condition 1: Why can't I access NVR server via browser?

After typing in the correct CMS server IP, if you cannot access CMS Login page, you may get the below browser screens:



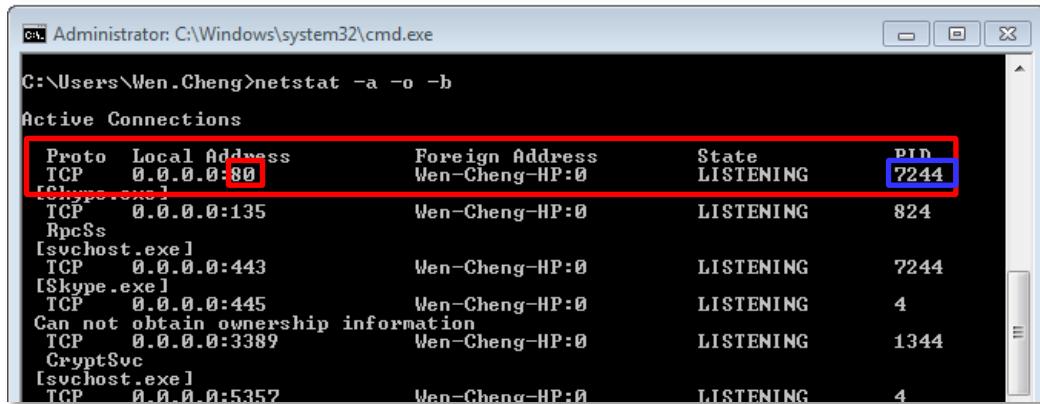
Cause 1: Server is not ready

Solution: It may happen when you just started the server computer or the server installation has just finished, please wait a few seconds and connect again.

Cause 2: This may happen when your CMS server uses default port 80. Server is not able to respond to your request through current path because port 80 has been seized by another service running on server computer, and that service is executed right before CMS server starts its services.

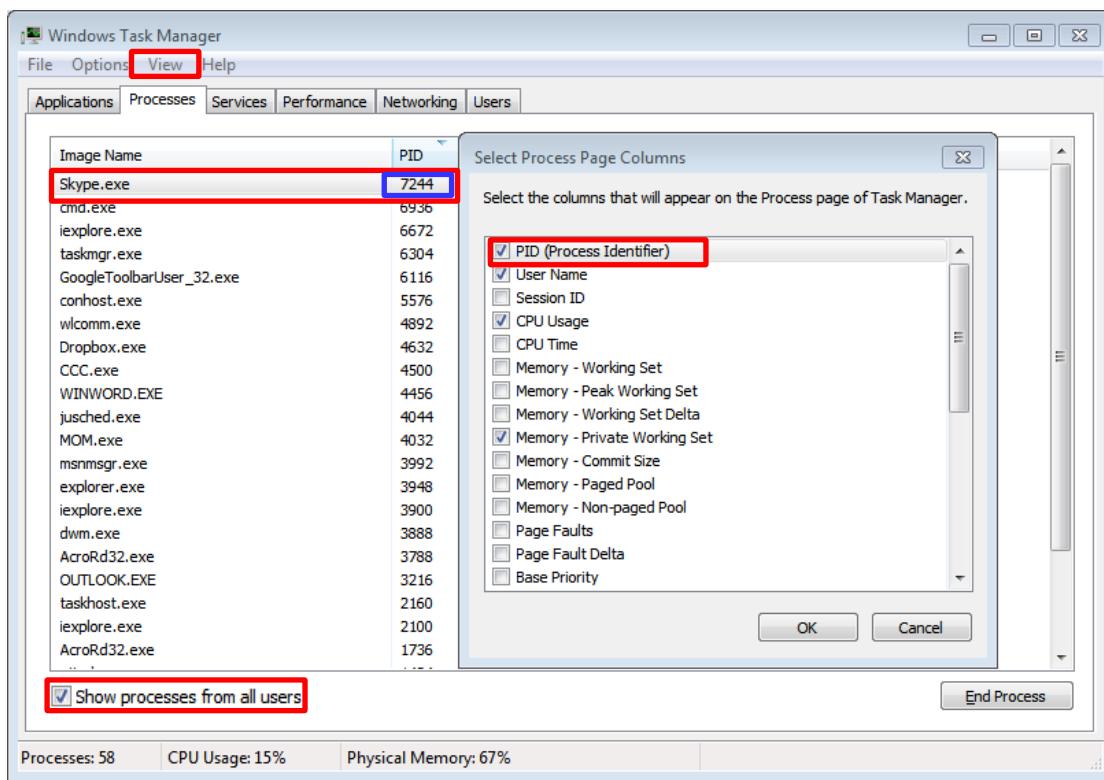
Solution: Please check if there is another service using port 80 right now (e.g. **Skype**), and change the setting in that program to release port 80 for CMS server. Below are the steps to find the service:

1. Please click on "**Windows Start**" (Windows-Logo)  , then enter "**cmd.exe**" in the run box and execute it.
2. Input the command "**netstat -a -o -b**". You will be provided with the ports in use and the services using them. Find the **Local Address** that has taken port **80**, and the **PID** number.



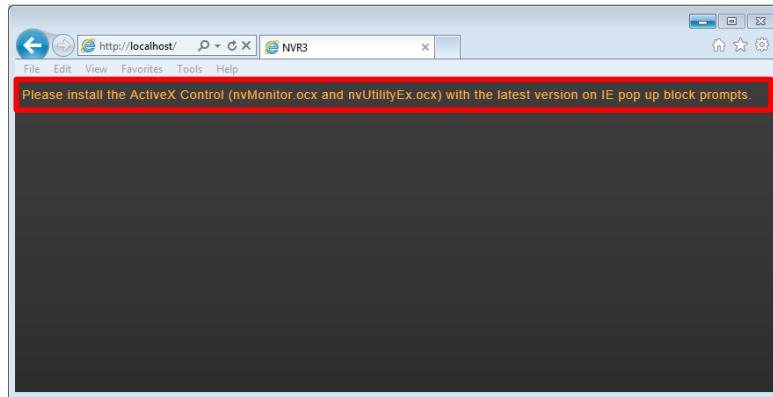
```
C:\> Administrator: C:\Windows\system32\cmd.exe
C:\>Users\Wen.Cheng>netstat -a -o -b
Active Connections
Proto Local Address          Foreign Address        State      PID
TCP   0.0.0.0:80              Wen-Cheng-HP:0       LISTENING  7244
[Skype.exe]
TCP   0.0.0.0:135             Wen-Cheng-HP:0       LISTENING  824
RpcSs
[svchost.exe]
TCP   0.0.0.0:443             Wen-Cheng-HP:0       LISTENING  7244
[Skype.exe]
TCP   0.0.0.0:445             Wen-Cheng-HP:0       LISTENING  4
Can not obtain ownership information
TCP   0.0.0.0:3389            Wen-Cheng-HP:0       LISTENING  1344
CryptSvc
[svchost.exe]
TCP   0.0.0.0:5357            Wen-Cheng-HP:0       LISTENING  4
```

3. Press down “ctrl”+“alt”+“Delete” keys to bring up **Windows Task Manager**. Select “View”, and then “Select columns”, and enable the “PID (Process Identifier)” to appear on search results. Please also make sure “Show process from all users” is enabled.
4. On **Task Manager Process** tab, locate the PID number of the service using port 80. The service name is shown under “Image Name” column.



Condition 2: Why can't I install Active X controls after logging in?

ActiveX Control components are essential for CMS server to present user interface. The message below will show if these controls were not installed.



Cause 1: Your **Internet Explorer** browser version does not support CMS.

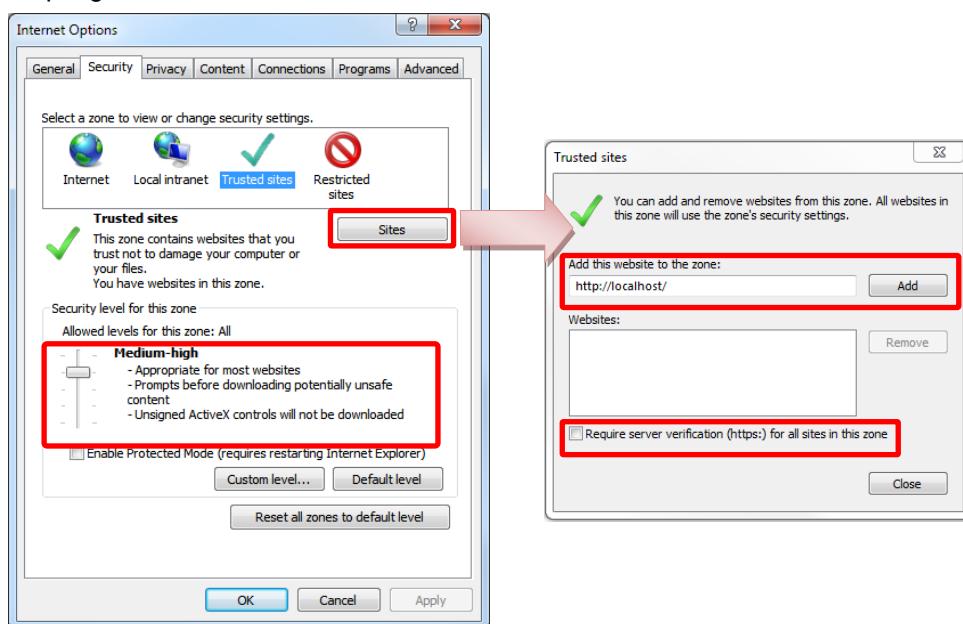
Solution: Make sure you are using IE8 or IE9 **32-bit** version.

Cause 2: Your browser restricts the installation of add-on components.

Solution: Internet Explorer security settings may restrict the installation of add-on components.

To ensure CMS server is always accessible from your web client regardless of any change in browser's overall Internet security settings, you may add CMS server site to Internet Explorer's Trusted sites. These sites are which you consider safe and wish to visit with low security restrictions while maintaining higher security for the rest of the Internet.

1. On IE browser, click **Tools** → **Safety** and make sure **ActiveX Filtering** is unchecked.
2. On IE browser, go to **Tools** → **Internet Options** → **Security** tab, select “**Trusted sites**”, set the security level to “**Medium High**”, and then click “**Sites**”.
3. Add <http://localhost> or server IP to the zone, and **clear** the box “**Require server verification (https:) for all sites in this zone**”.
4. Back on **Security** tab, click “**Apply**” to apply the changes. This will allow ActiveX and scripting to be available for the chosen sites but not for the Internet as a whole.



Login



Enter Account & Password

- **Account** (non case-sensitive): **Admin** (default)
- **Password** (case-sensitive): **123456** (default)

Change UI language

To change UI language, select the desired language from “**Language**” dropdown list.

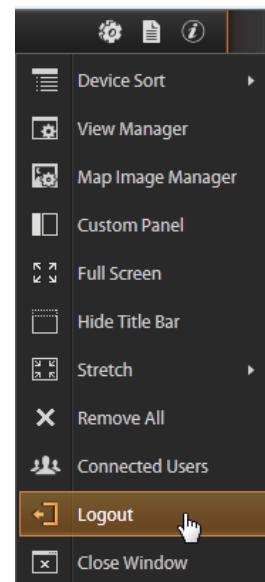
Remember Login Information

To have the server remember your Login name, password and language setting for future, check “**Remember login info**”. Click “**Don't remember**” will clear your input text and reset to default.

Set Auto Login

Check “**Remember login info**” then “**Auto Login**” to skip the Login page and go directly to the main page every time you log in from this PC in the future. **If your computer may be accessed by someone without proper authority, please DO NOT use either of these functions.**

To cancel auto-login, on title bar, click  → “**Logout**” to return to login page, and this function is cancelled.

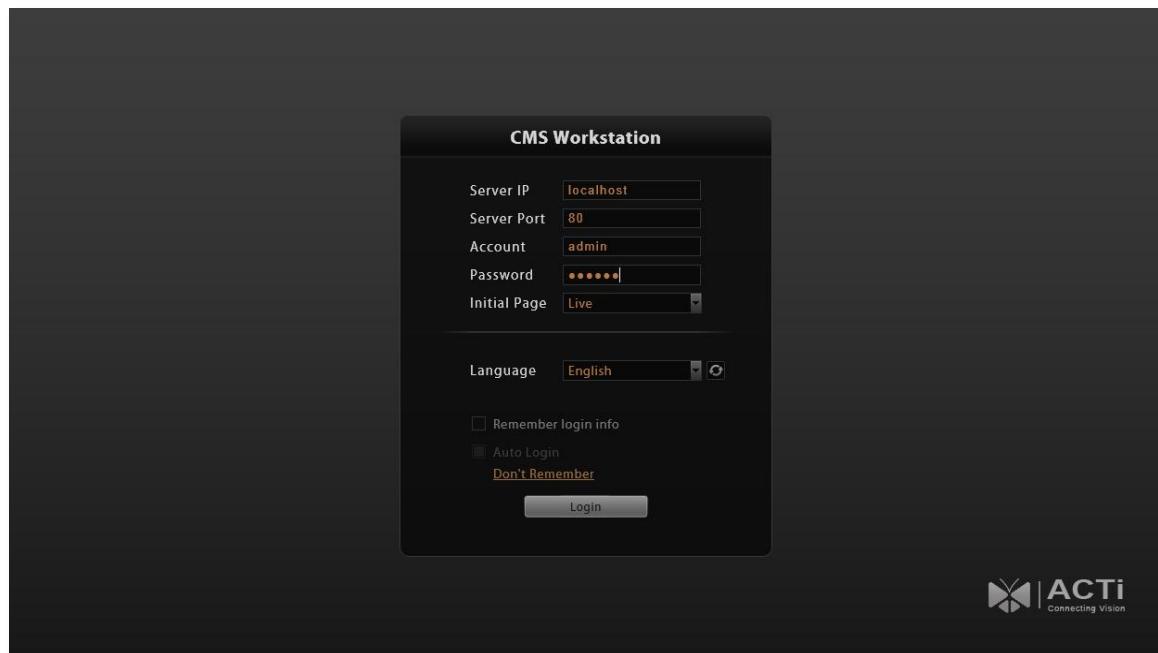


Access CMS Server via Workstation

CMS Workstation includes a set of programs that provide interface between users and the CMS server. It may be installed on the same PC as the CMS server, or they may be installed separately and connect to CMS Server via network.



Double-click the shortcut icon on your desktop to execute this workstation application.




Login

Fill in the following fields then click “**Login**” to log in to the system. The login process of Workstation is very much the same as that of Web browser except for the following:

Server IP & Server Port

- In **Server IP** field, key in **localhost** or **127.0.0.1** if CMS Workstation is on the same computer with CMS server. If you are connecting from another computer, please input the ip address of server computer, for example: **220.228.146.22**.
- In **Server Port** field, key in the default port number **80**.

Choose the Initial Screen



CMS user interface consists of three main module screens: **Live View**, **Playback** and **Setup**, you may choose one where you would like to enter after logging in. Default is **Live View** screen.

Set up the System

This chapter will guide you through everything you need to know in **System Setup** procedure from first time connection with CMS server to general system configuration.

CMS Main Screen

On the right are link buttons to three CMS major functions: (1) **Live View**, (2) **Playback** and (3) **Setup**. You can click the orange button to enter the function page.

Live View



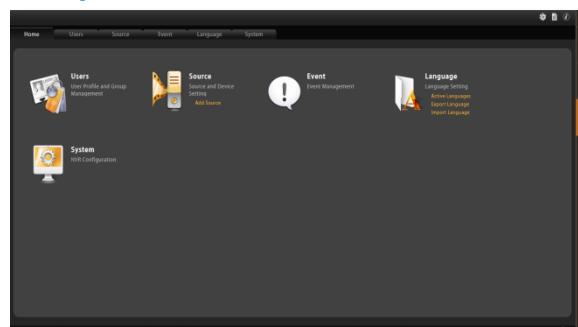
In this module, you can see live view from NVRs, perform PTZ operations with a mouse or a joystick, view system log, receive alerts on the event panel, setup view layouts, perform manual recording or take a snapshot.

Playback



You may find and playback existing recordings in this module. Up to 100 channels can be played synchronously. Snapshots or video segments can be taken from playback files. Recorded files can also be exported to AVI format here.

Setup



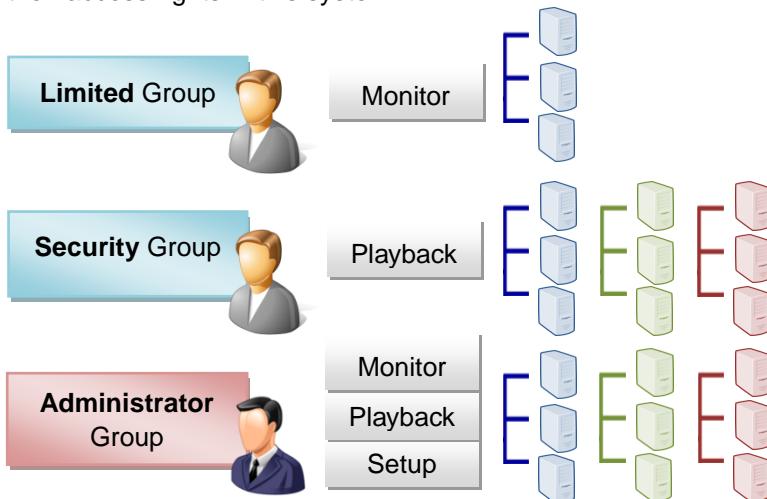
This module includes user setup, NVR/device setup, event setup, schedule setup and CMS system-wide settings.

Manage Users

The User Groups/Users page allows you to (1) manage the access permissions of different user groups, (2) add users to or delete them from user groups, (3) and assign users to specific user group. This chapter will take you through these settings.

Access Permissions

In CMS, the access permissions are managed by **User Groups**. **User Groups** defines which CMS operations and NVRs are allowed for the group user. Different **User Groups** will have different access rights. For example, an Administrator User is allowed for the complete operations in CMS system, while a standard User may only be permitted to do **Live View** and **Playback** with limited NVRs. The chart below displays different employees as CMS Users and their access rights in this system:



Overview

Go to **Setup** page →**Users** tab. There are two sections to manage User Groups and Users individually.

User Groups: To setup user groups and its permissions for device and functionalities.

Users: To manage user accounts and configure user information.

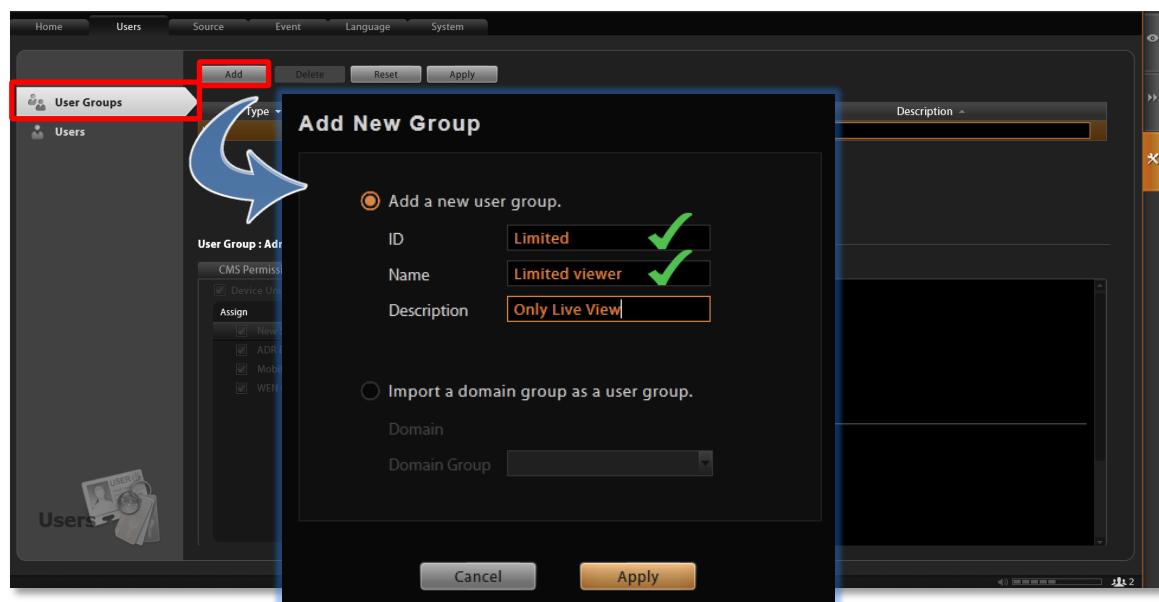
CMS has integrated **Microsoft Active Directory®** service to provide network administrators a more convenient choice for user management. Active Directory is a directory service built in Microsoft Server products to manage user identities and privileges within the domain network. As CMS runs on a server computer logged on to the same domain with Active Directory server, you can import a user account or a group from those concurrently existing in Active Directory into CMS server. In this way, the user identification is processed by Active Directory centrally, and there is no need for CMS administrator to maintain user accounts.

User Groups

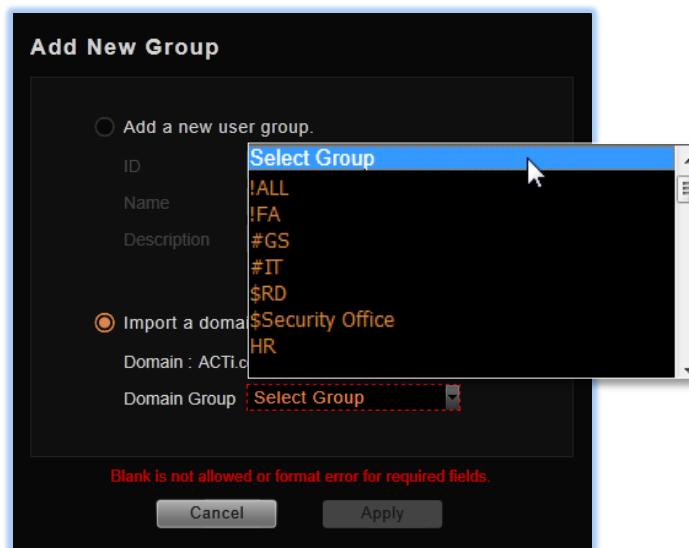
You can specify access permissions to each NVR for a whole user group. This user grouping can save you significant amount of works if you have multiple users performing similar tasks and acting as similar roles.

By default, the **Administrator** User is predefined with full permissions in the CMS server, and cannot be deleted. You can choose to create a new user group on CMS server or import an existing group from the active directory database within your domain.

1. Select  User Groups, click “Add” and then choose the group type:
 - Add a new user group: Insert **ID**, group **Name** and group **Description**, your input in the **Name** field will be the name of this User group. Click “Apply” to finish.



- Import a domain group as a User group: Choose an existing user group from your domain, and click “Apply” to finish.



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The domain users within that group will all be added to CMS server at the same time. To check these group users, please select  Users and enable the “**Show users in domain groups.**” These users, unlike those customized user accounts you would add one by one to CMS server, are not editable on **Users** page.

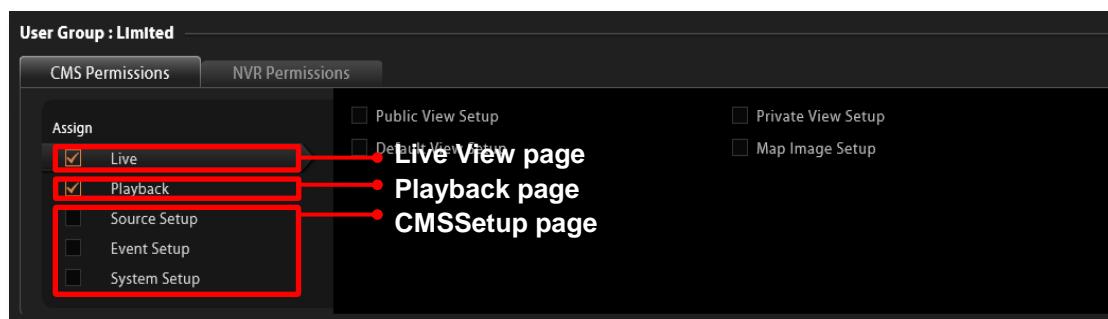


A screenshot of the CMS 2.0 User list interface. A red box highlights the checkbox for "Show users in domain groups." Below it, a red box highlights the four users under the \$Security Office group. The users are: Deckard Cain, John Bourne, Steve Lin, and Joyce Holiday. A red arrow points from the text "Domain users added as a whole group" to the highlighted users.

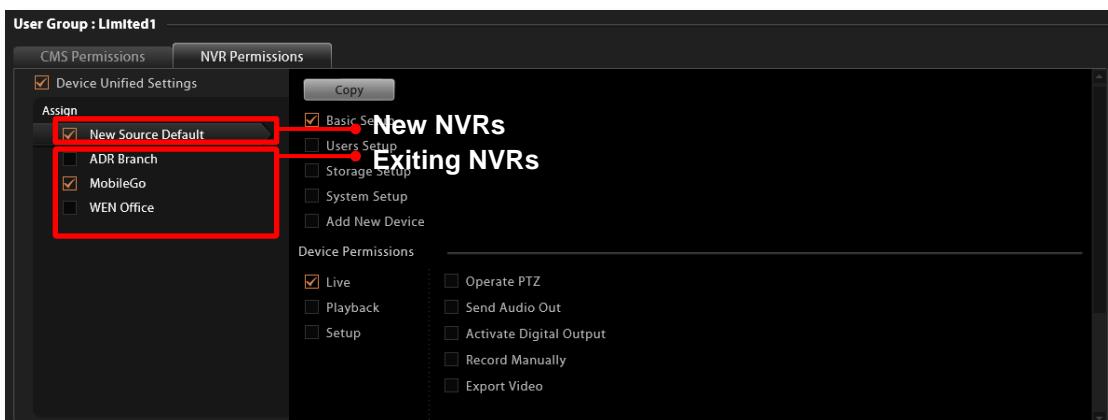
| User Type | User Account | User Name | Password | Email | Group Name |
|-----------------|---------------|---------------|----------|------------------------|-------------------|
| Customized User | admin | Admin | ***** | | Administrator |
| Domain User | Deckard Cain | Deckard Cain | | Deckard.Cai@acti.com | \$Security Office |
| Domain User | John Bourne | John Bourne | | John.Bourne@acti.com | \$Security Office |
| Domain User | Steve Lin | Steve Lin | | Steve.Lin@acti.com | \$Security Office |
| Domain User | Joyce.Holiday | Joyce.Holiday | | Joyce.Holiday@acti.com | General Service |

Domain users added as a whole group

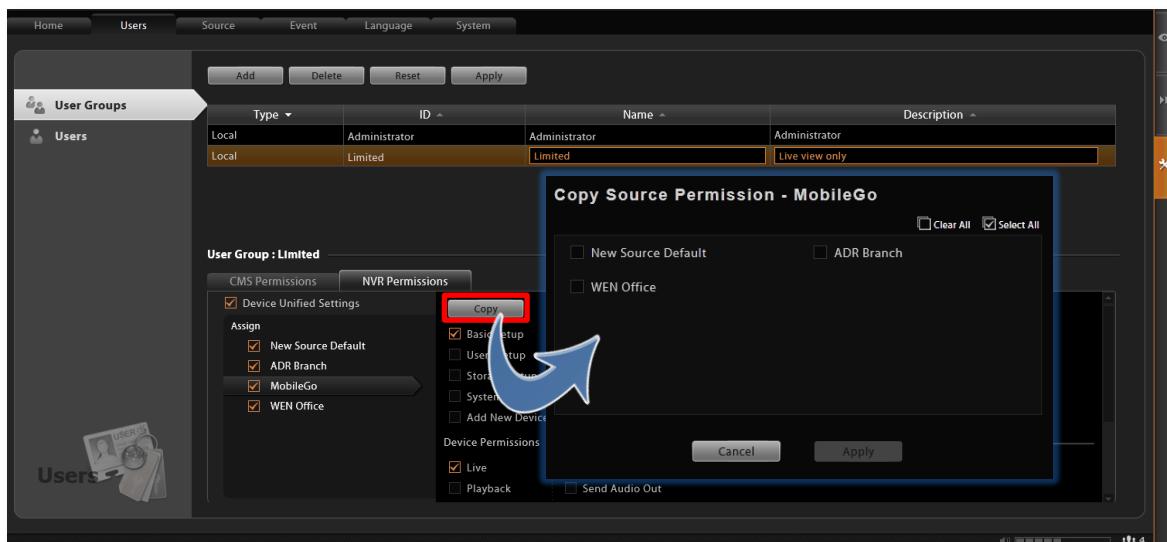
- Assign **NVR Permissions** for created group. This will define what functions this User group is allowed to access. By default, a User group will initially be allowed to access only Live View page and Playback page on CMS, but without any permission to any NVR, so you will have to assign the **NVR Permissions** later.



- Assign **NVR Permissions** for created group. This will define which NVRs this User groups is allowed to access. If this User group is allowed to access later-added NVRs, check “**New Device Default**” and edit the permissions.



You may copy the **Device Permissions Settings** to other sources. Click “**Copy**” under **Device Permissions** tab to bring up the target device menu, check the target sources, and click “**Apply**”.

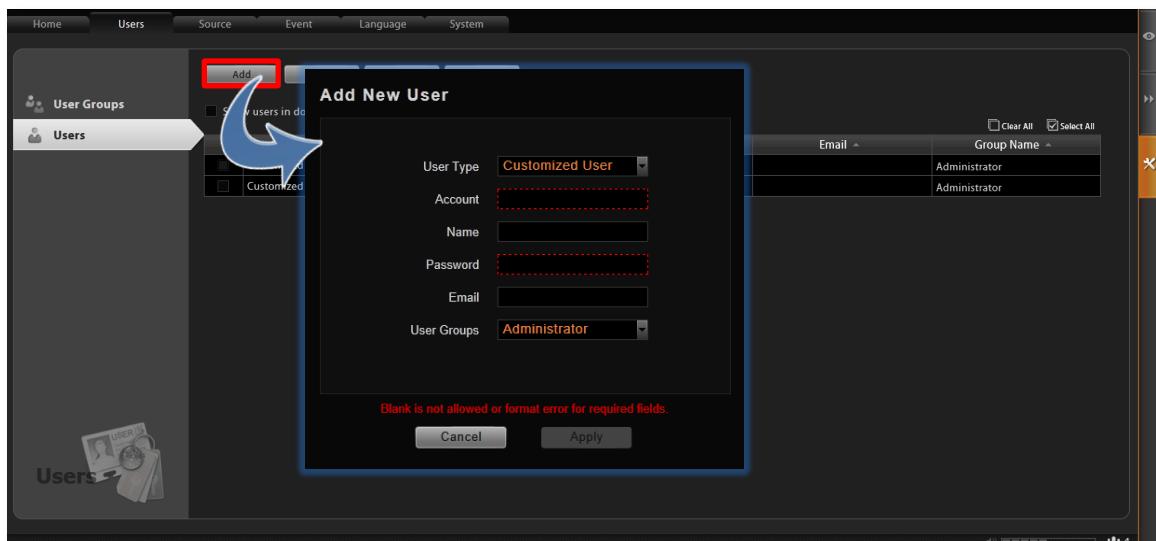


Click “**Apply**” on top to save the settings.

Add Users

You can create a user account with username/password authentication for CMS server.

1. Select  **Users**, and click **Add** button.
2. Select **User Type** as **Customized User** or **Domain User**. By adding a **Domain User**, there is no need to input the account information as it has been created and under maintenance of Active Directory server.
 - Customized User**: an account created and managed on CMS server only.
 - Domain User**: an account that already exists in Active Directory database.
3. (For Customized User only) Insert **Account**, **Name**, **Password**, and the account **Email**. The **Account** and **Password** will be the credential used to log in to CMS server.
4. Assign the created user to a specific user group.
5. After you click “**Apply**”, this new user will be added to the list.



Note

Account /Password Rules

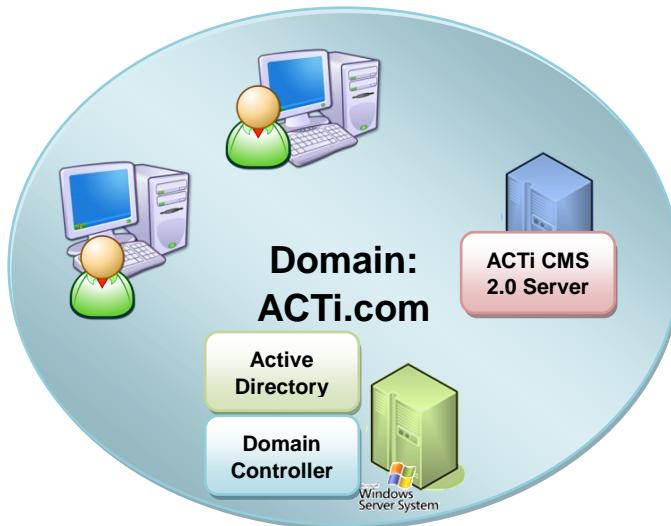
1. **Account** and **Password** fields allow alphabets, numbers, and symbols except the following: /\[]:;|=,+*?<>"
2. In **Account** field, for alphabets, the input will be recognized as lowercase letters. Space is only allowed between characters; the space in the beginning or at the end will be deleted when it is saved.
3. The **Password** field is case-sensitive, and the space is allowed.

Note

Admin is the default user account and belongs to “**Administrator**” user group. Hence, the user **Admin** and the group **Administrator** cannot be deleted; it possesses full permissions to all NVRs and CMS settings.

Domain Users Management

As CMS server computer logged on to a domain Active Directory, it can import a user account from Active Directory.



This type of User account is “**Domain User**”. Upon being added to CMS server, the User properties stored on Active Directory database including account name and email address will be imported to CMS server.

| Select | User Type | User Account | User Name | Password | Email | Group Name |
|-------------------------------------|-----------------|--------------|-----------|----------|--------------------|---------------|
| <input type="checkbox"/> | Customized User | admin | Admin | ***** | | Administrator |
| <input checked="" type="checkbox"/> | Domain User | wen.cheng | Wen Cheng | | Wen.Cheng@ACTi.com | User |

Whenever the Domain User client tries to log in to CMS server, CMS server will first verify if this account exists in CMS server database, then will have Active Directory verify the user account and password.

As Active Directory owns the privilege to create, edit and delete domain users, [the Domain User's account and password are not editable through CMS user interface but via Active Directory Administrative Tool.](#)

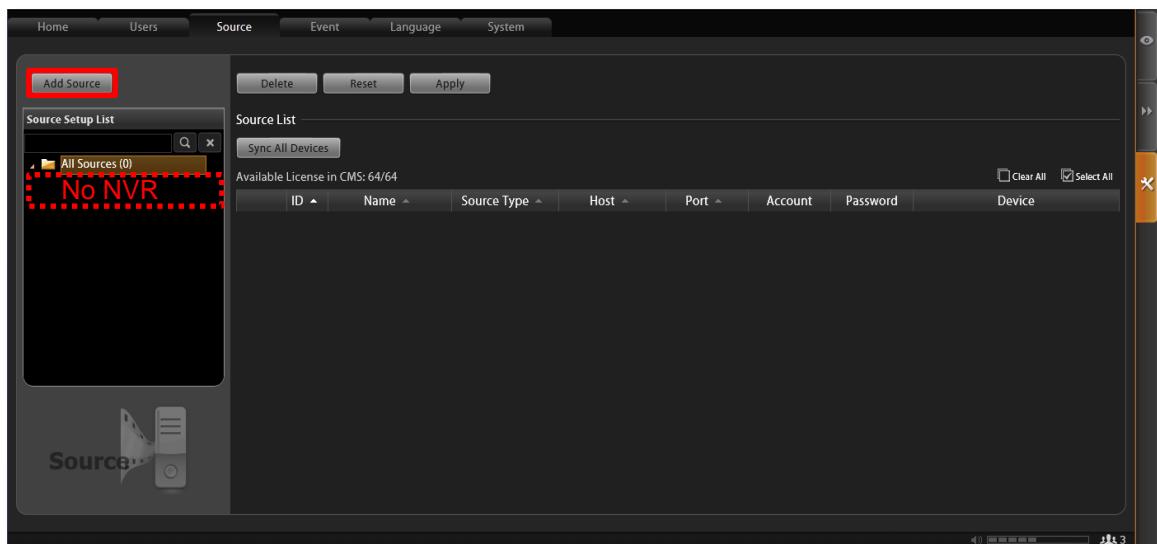
Manage NVRs

A CMS server manages multiple NVR servers, whose fundamental building blocks are the cameras or video encoders. The first thing you should do after you have registered license is to setup your NVR connections in CMS **Setup** page. In this section, we will guide you through how to manage the NVRs and their devices.

Add an NVR

To start adding a new NVR, please follow steps as below:

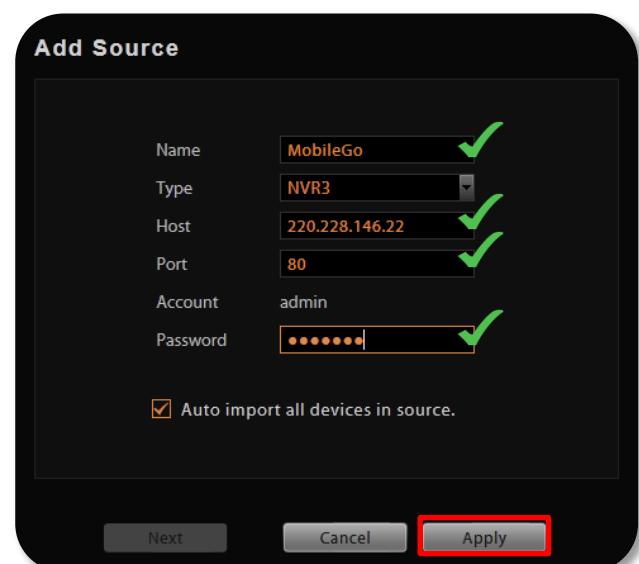
1. On **Setup** page → click “**Source**”. There is **0** source in **All Sources** list. Now click “**Add Source**”.



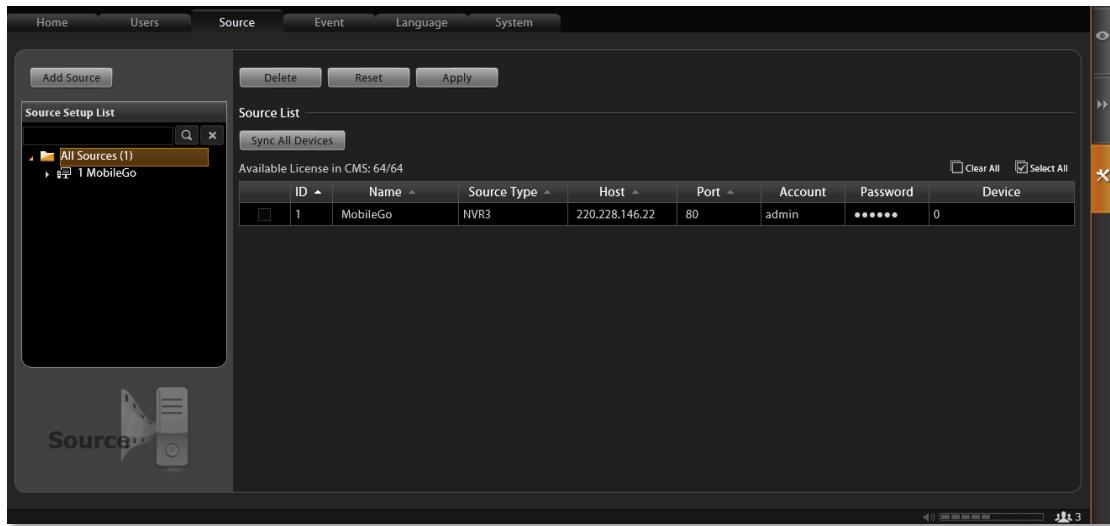
2. On the **Add Source** window, fill in the following fields and click “**Apply**”:

- **Name** - title of this NVR
- **Host** - the NVR's IP address
- **Port** - the NVR's port number
- **Password** - the Administrator's password of this NVR.

By default, all the devices in the NVR will be automatically added to CMS server after you click “**Apply**”. If you want to select the desired devices later rather than import all the devices at this stage, unselect “**Auto import all devices in source**” before clicking “**Apply**”.



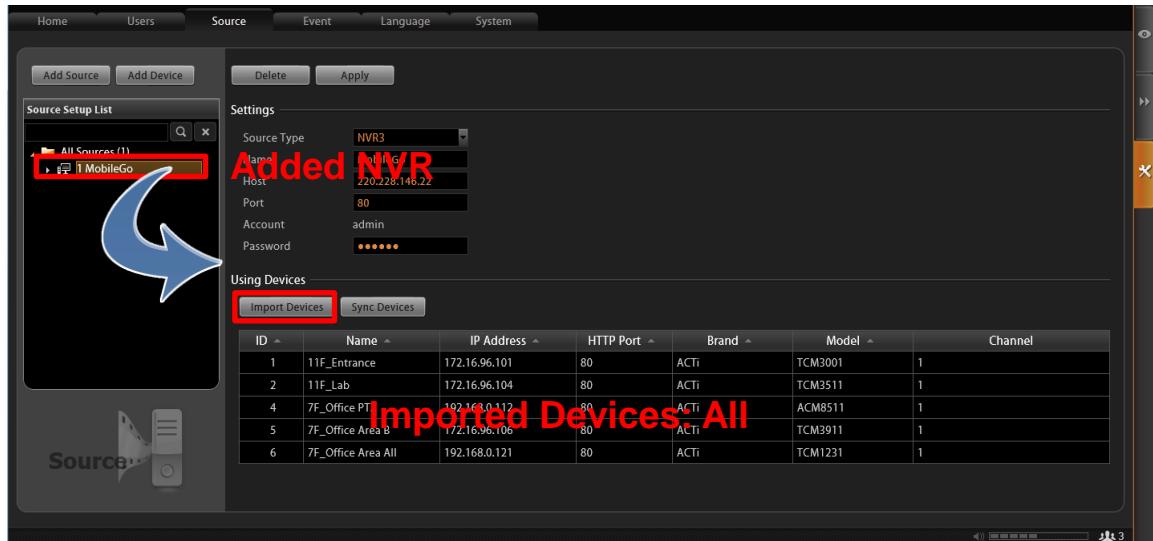
Under **All Sources** category will appear the new NVR.



Import Devices from NVRs

In most cases, with limited licenses, you would not decide to import all devices existing in all NVRs to your CMS server. After an NVR is added, you may start selecting your desired devices to import to CMS server. Once a device is imported, on CMS interface you can (1) modify this device directly, (2) see live stream and (3) receive the instant event notifications from this device.

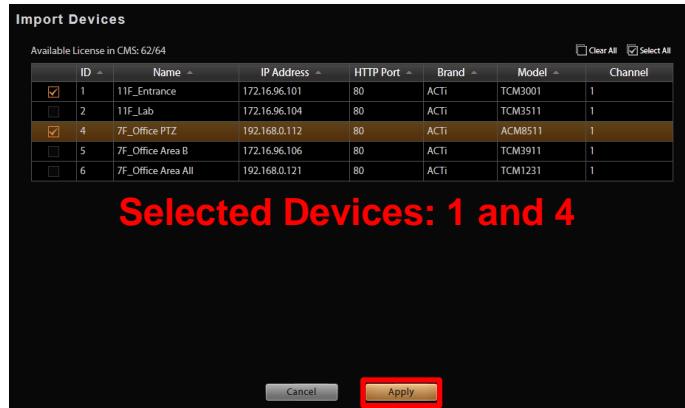
1. On **All Sources** list, select this NVR, the **Using Devices** list will display the imported devices on the right. By default, all the devices of an NVR are imported by the time you add it to CMS server.



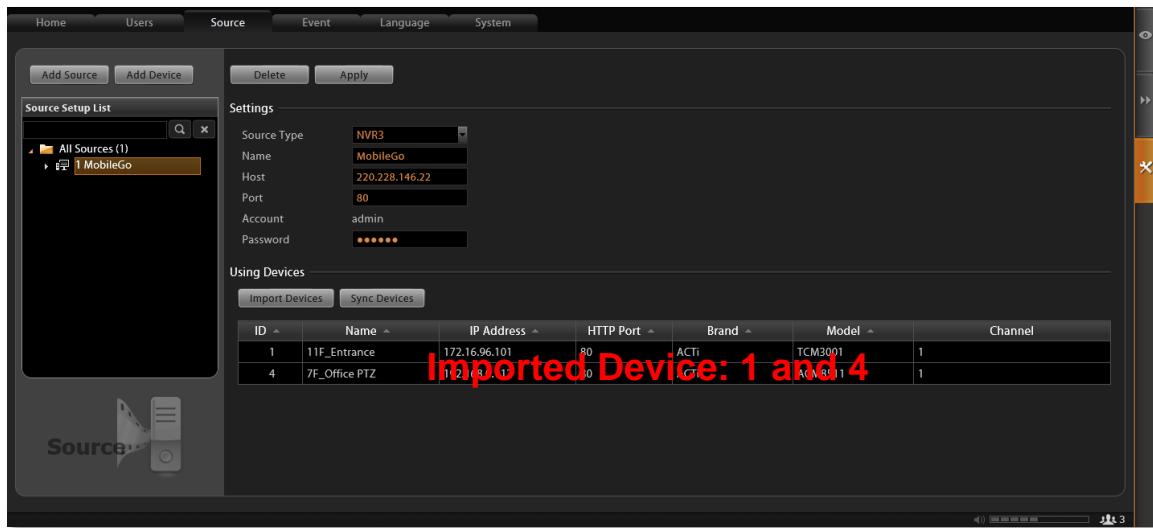
2. Click "Import Devices" to enter NVR device list.

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3. On the **Import Devices** list will show all devices of this NVR. Select the desired devices you want to import and click “**Apply**”.



4. The **Using Devices** list will be updated in accordance with your selection on **Import Devices** list.



Synchronize Device Settings

Some re-arrangements or configurations done to the NVR are not synchronized with CMS server actively. For example, an NVR administrator may replace several cameras (which have also been imported to CMS server) with new ones, and therefore the CMS site would lose the connections between those previous cameras. On CMS, you can always synchronize with an NVR server via one click:

1. Go to **Setup** page → **Sources** tab, on **All Sources** list, select this NVR.
2. On the right, click “**Sync Device**” button.
3. Click “**Apply**”.

Tip

Whenever your CMS server loses connection with certain devices, it is always suggested that you click this button **Sync Devices** first, since the loss of connection probably resulted from some changes done on the NVR site.

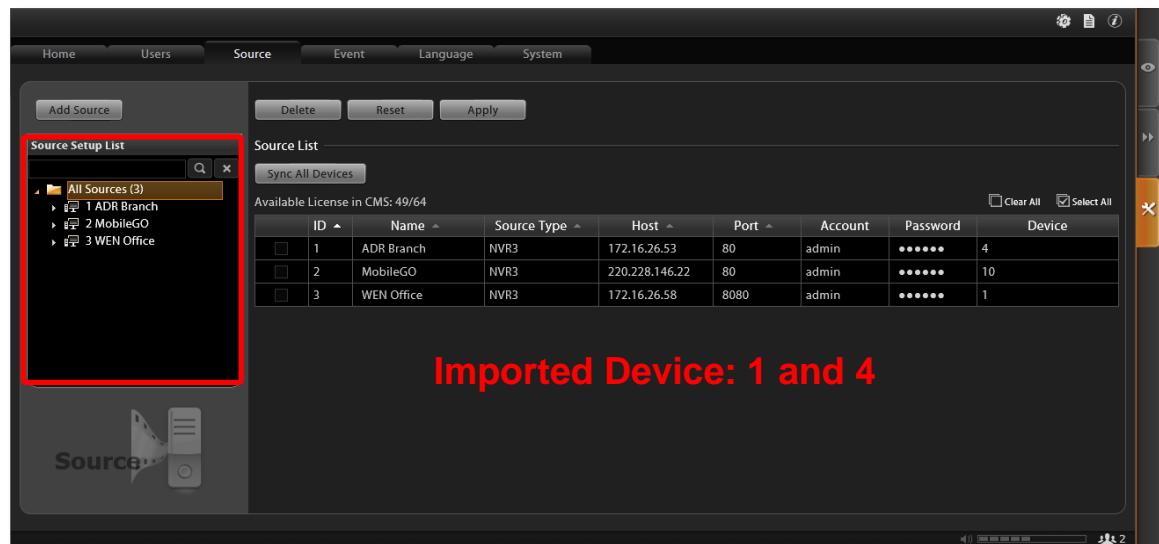
Manage Multiple NVRs

You may centrally manage multiple NVRs on the **All Sources Setup List** easily.

Go to **Setup** page → **Sources** tab. Under  **All Sources** list all the NVRs you added.

Search an NVR

To locate a specific NVR in the **All Sources** tree, you may input the keyword in its name in the search bar, and then click  to start searching, and click  to show all sources.



The screenshot shows the CMS 2.0 Source Setup List interface. On the left, there is a tree view labeled "Source Setup List" with a folder icon. Inside the folder, there is a list of three items: "All Sources (3)", "1 ADR Branch", "2 MobileGO", and "3 WEN Office". The "All Sources (3)" item is highlighted with a red box. On the right, there is a table titled "Source List" with the following data:

| ID | Name | Source Type | Host | Port | Account | Password | Device |
|----|------------|-------------|----------------|------|---------|----------|--------|
| 1 | ADR Branch | NVR3 | 172.16.26.53 | 80 | admin | ***** | 4 |
| 2 | MobileGO | NVR3 | 220.228.146.22 | 80 | admin | ***** | 10 |
| 3 | WEN Office | NVR3 | 172.16.26.58 | 8080 | admin | ***** | 1 |

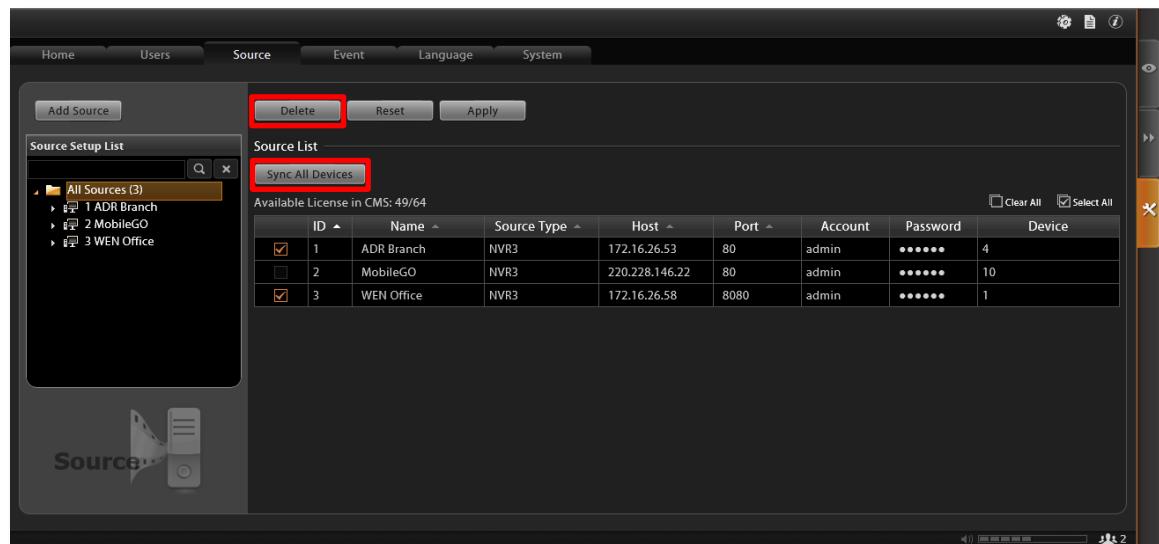
A red box highlights the "Sync All Devices" button at the top of the table. Below the table, the text "Imported Device: 1 and 4" is displayed in red.

Delete NVRs

Highlight  **All Sources**, a detailed NVR list will appear on the right. Select the NVRs you want to delete, and click “Delete” then “Apply”.

Synchronze with All Devices

Highlight  **All Sources** and click “Sync All Devices”, CMS server will synchronize with all the NVRs and imported devices.



The screenshot shows the CMS 2.0 Source Setup List interface. On the left, there is a tree view labeled "Source Setup List" with a folder icon. Inside the folder, there is a list of three items: "All Sources (3)", "1 ADR Branch", "2 MobileGO", and "3 WEN Office". The "All Sources (3)" item is highlighted with a red box. On the right, there is a table titled "Source List" with the following data:

| ID | Name | Source Type | Host | Port | Account | Password | Device |
|-------------------------------------|--------------|-------------|----------------|------|---------|----------|--------|
| <input checked="" type="checkbox"/> | 1 ADR Branch | NVR3 | 172.16.26.53 | 80 | admin | ***** | 4 |
| <input type="checkbox"/> | 2 MobileGO | NVR3 | 220.228.146.22 | 80 | admin | ***** | 10 |
| <input checked="" type="checkbox"/> | 3 WEN Office | NVR3 | 172.16.26.58 | 8080 | admin | ***** | 1 |

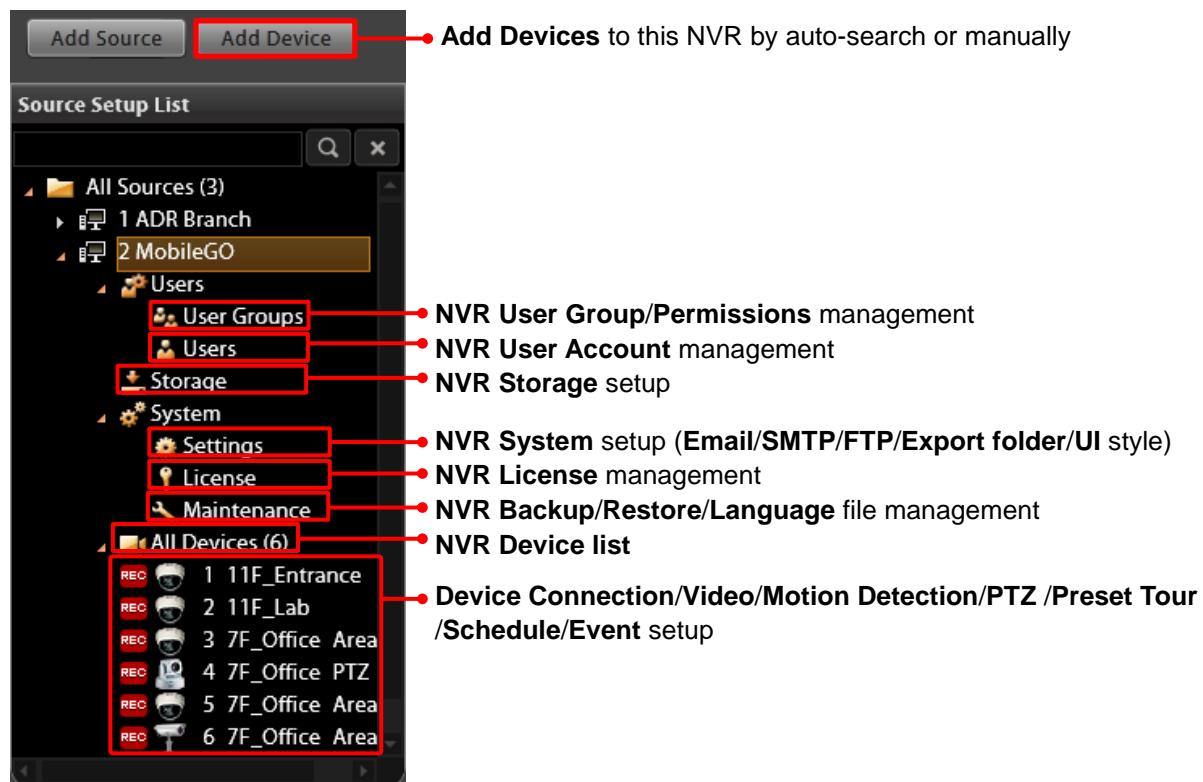
Two red boxes highlight the "Delete" button at the top left of the table and the "Sync All Devices" button at the top center of the table.

Configure NVR / Devices Settings

As CMS administrator owns unrestricted rights to control all the NVRs and their devices, it is sometimes more convenient to modify the NVR settings directly from CMS interface. On CMS **Source** management page, you may change any property of an NVR or its devices.

Access NVR Settings

To enter an individual NVR's settings, Go to **Setup** page → **Sources** tab, on **All Sources** list, select an NVR, and click on the arrow  to expand its sub category. By selecting a title, the setup page will appear on the right. Any change applied to the NVR will be saved to both NVR itself and CMS server.



Note

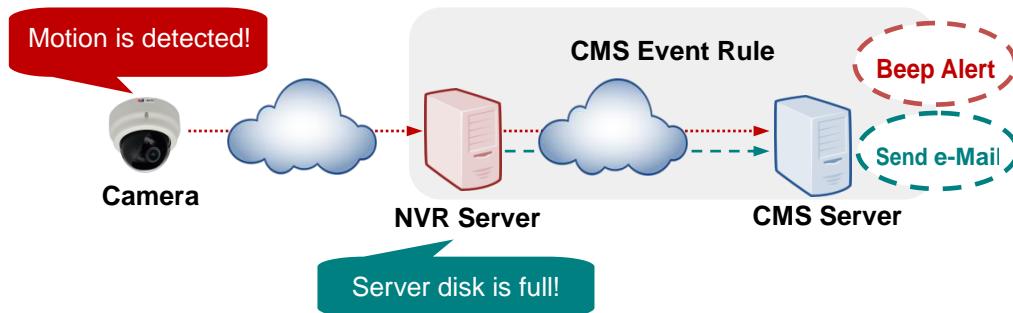
Please note the following before applying any change to an NVR:

1. It is strongly recommended that you enter "**Maintenance**" to make a backup of the original NVR settings.
2. Only the devices in the same network segment with the selected NVR can be found or manually added by clicking "**Add Device**".
3. To modify a device's schedule or event rules, please select the device and enter the **Schedule** or **Event** tab on the right.
4. The customized views saved on an NVR server cannot be configured via CMS interface.

Event Management

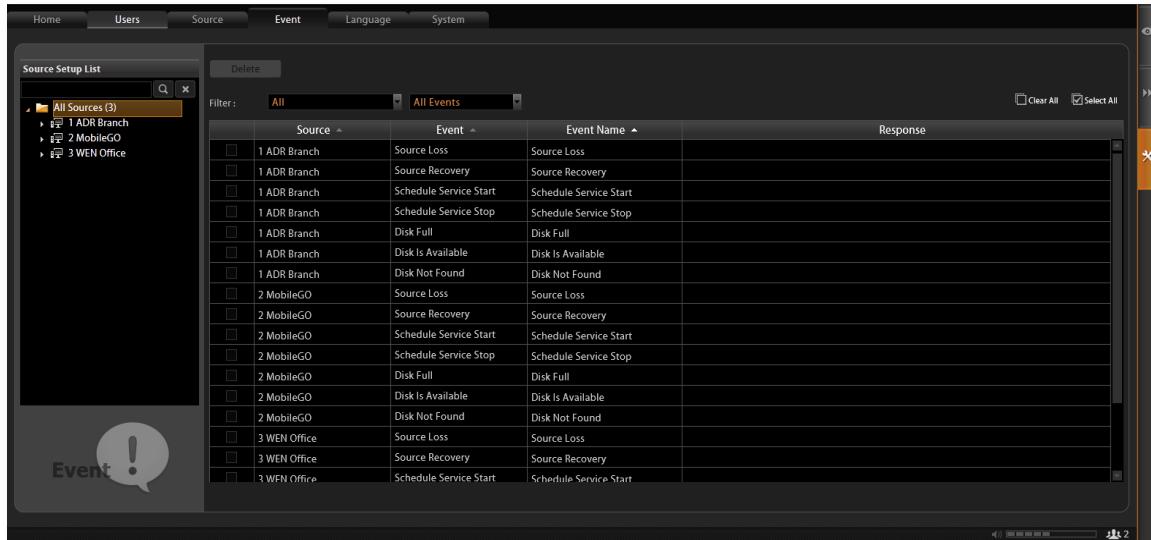
As each NVR server individually manages the events on the camera site or NVR site, the triggered responses would take place to notify NVR clients in various forms of actions. Under CMS management, an event detected by a single device can be notified to CMS clients at the same time. For example, once a camera detects a motion, both NVR client and CMS client would be alerted by a pop-up live view window. In addition, an NVR server's abnormal status notification can trigger actions on CMS interface to notify CMS clients.

To have CMS be notified with the events from devices and NVRs, please set up event rules in **CMS Setup** page → **Event** tab. The event rules set here will be independent from those set on NVR.



How to Edit an Event Rule

Go to **Setup** page → **Event** tab. All the editable event rules are listed on the right.



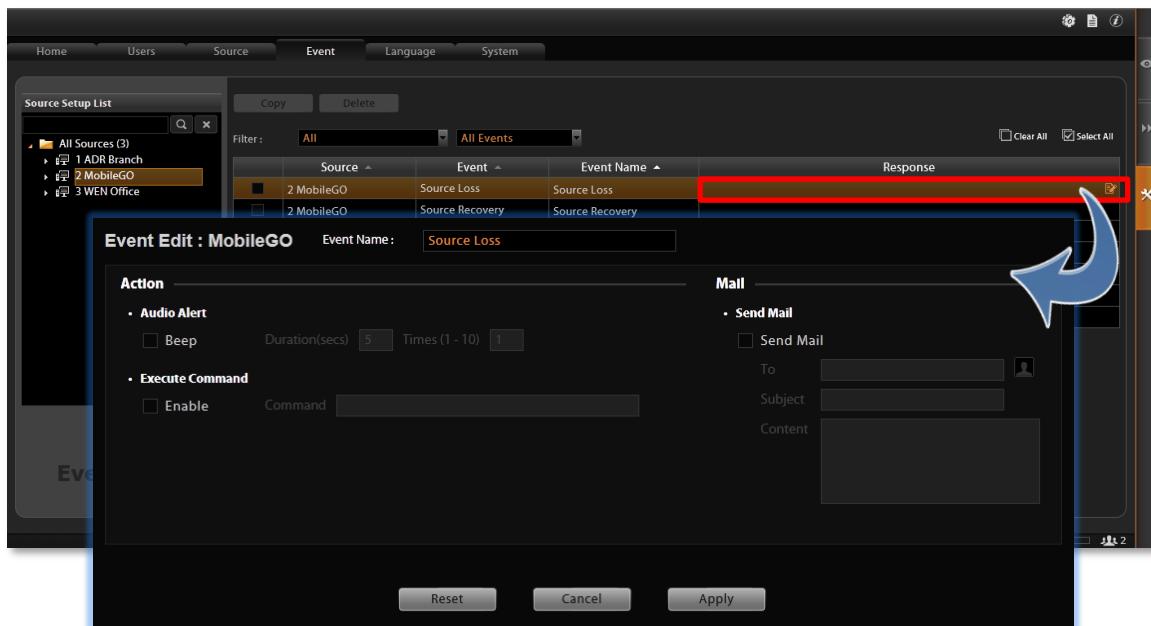
The screenshot shows the CMS 2.0 interface with the 'Event' tab selected. On the left, there is a sidebar titled 'Source Setup List' showing a tree view of sources: 'All Sources (3)' expanded, with '1 ADR Branch', '2 MobileGO', and '3 WEN Office' under it. A large orange speech bubble icon with an exclamation mark is overlaid on the sidebar. The main panel displays a table of event rules:

| Source | Event | Event Name | Response |
|--------------|------------------------|------------------------|----------|
| 1 ADR Branch | Source Loss | Source Loss | |
| 1 ADR Branch | Source Recovery | Source Recovery | |
| 1 ADR Branch | Schedule Service Start | Schedule Service Start | |
| 1 ADR Branch | Schedule Service Stop | Schedule Service Stop | |
| 1 ADR Branch | Disk Full | Disk Full | |
| 1 ADR Branch | Disk Is Available | Disk Is Available | |
| 1 ADR Branch | Disk Not Found | Disk Not Found | |
| 2 MobileGO | Source Loss | Source Loss | |
| 2 MobileGO | Source Recovery | Source Recovery | |
| 2 MobileGO | Schedule Service Start | Schedule Service Start | |
| 2 MobileGO | Schedule Service Stop | Schedule Service Stop | |
| 2 MobileGO | Disk Full | Disk Full | |
| 2 MobileGO | Disk Is Available | Disk Is Available | |
| 2 MobileGO | Disk Not Found | Disk Not Found | |
| 3 WEN Office | Source Loss | Source Loss | |
| 3 WEN Office | Source Recovery | Source Recovery | |
| 3 WEN Office | Schedule Service Start | Schedule Service Start | |

NVR Status Event Rule

An event rule set for an NVR will trigger actions to notify CMS client.

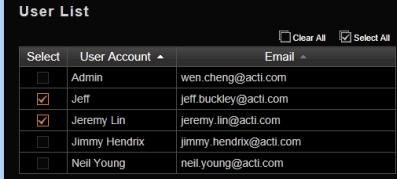
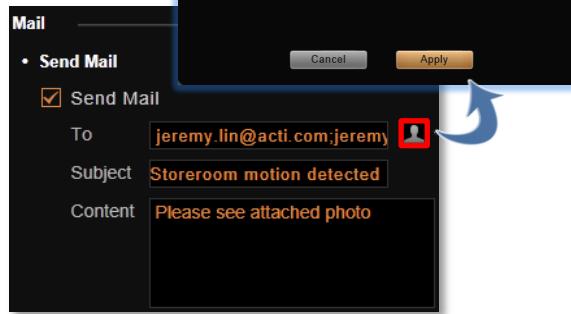
1. Select an NVR source to edit an NVR event rule. There are seven types of NVR status that can be set as event triggers – **Source Loss**, **Source Recovery**, **Schedule Service Start**, **Schedule Service Stop**, **Disk Full**, **Disk is Available** and **Disk Not Found**.



The screenshot shows the 'Event Edit' dialog for a 'MobileGO' source. The 'Event Name' is set to 'Source Loss'. The 'Action' section contains two items: 'Audio Alert' (Beep, Duration(secs: 5, Times: 1-10)) and 'Execute Command' (Enable, Command: [empty]). The 'Mail' section contains an item 'Send Mail' with fields for 'To' (with a placeholder), 'Subject' (with a placeholder), and 'Content' (a large text area). A blue arrow points from the 'Event Edit' dialog back to the main 'Event' table in the background.

2. Highlight the rule you wish to edit. Double-click the "Response" field to edit the response action.

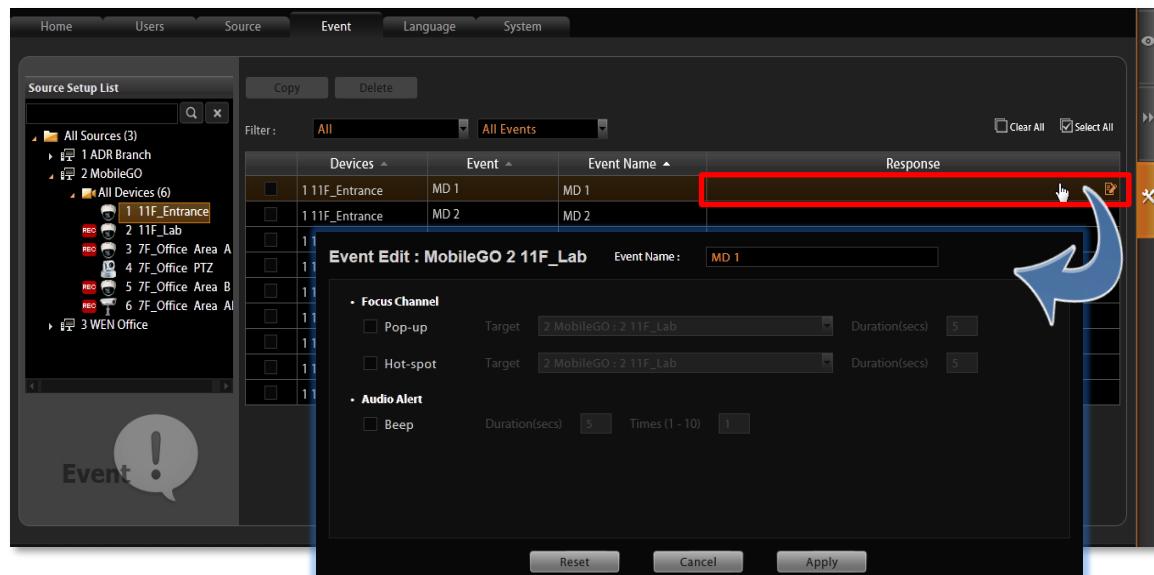
3. On **Event Edit** window, you can enable multiple response actions by first checking the box(es) to enable the items:

| Action Items | Function Description |
|---|--|
| <ul style="list-style-type: none"> Audio Alert <p><input checked="" type="checkbox"/> Beep Duration(secs) <input type="text" value="5"/> Times (1 - 10) <input type="text" value="1"/></p> | Enables CMS server to play beep sound for a number of repetitions. Please make sure the sound device of your server computer is working. |
| <ul style="list-style-type: none"> Execute Command <p><input checked="" type="checkbox"/> Enable Command <input type="text" value="C:\Program Files\Skype\Phone\Skype.exe"/></p> | Enables CMS server to execute a specific command upon this event. You can use it to integrate CMS event with other programs. Enter the path of the command to be executed upon event. |
|   | <p>Enables CMS server to send an email notification via SMTP server. The default SMTP and sender's email settings can be set in advance in Setup page → System tab → Settings → Email& SMTP Settings.</p> <ol style="list-style-type: none"> 1. Type one or more recipients' email addresses in "To" column (if more than one, please separate them by ";" symbol) or click the  icon to select recipients from existing NVR User list. The User's Email address should be set in advance (in Setup page → Users tab → Users) so that it can be selected in this list. 2. Edit the email subject and content. |

Device Status Event Rule

An event rule set for a specific device will trigger actions to notify CMS client.

1. Select an NVR, click the arrow  to expand its sub-categories, and select the device. There are five types of device status that can be set as event triggers – **Motion**, **DI Trigger**, **Video Loss**, **Video Recovery**, **Network Loss** and **Network Recovery**.
2. Highlight the rule you wish to edit. Double-click the “Response” field to edit the response action.



3. On **Event Edit** window, you can enable multiple response actions by first checking the box(es) to enable the items:

| Action Items | Function Description |
|--|---|
| <ul style="list-style-type: none"> Focus Channel <p><input checked="" type="checkbox"/> Pop-up Target: 08 Stroero... Duration(secs): 5</p> <p><input checked="" type="checkbox"/> Hot-spot Target: 04 Counter Duration(secs): 10</p> | <p>This kind of action will focus your attention on the channel on client's Live View page when triggered.</p> <p>Pop-up: Brings up event pop-up playback window of selected channel upon trigger. You may also define the display duration of video on the window.</p> <p>Hot-spot: Displays video in Hot-spot window (red flashing frame) upon event. You may also define display duration of video on the Hot-spot window</p> |
| <ul style="list-style-type: none"> Audio Alert <p><input checked="" type="checkbox"/> Beep Duration(secs): 5 Times (1 - 10): 1</p> | <p>Enables CMS server to play beep sound for a number of repetitions. Please make sure the sound device of your server computer is working.</p> |

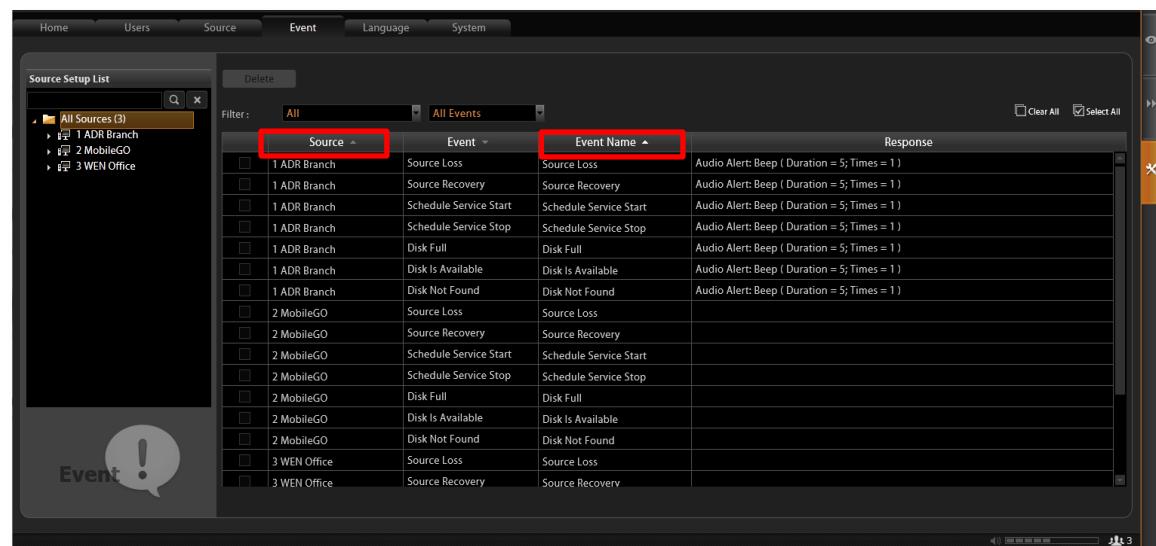
To validate if this rule is successfully set, please make sure you have properly configured the involved (1) triggering side settings like **Motion Detection Regions** or **DI**, (2) response side settings like audio speaker device in CMS server site.

Manage the Event Rules

Event List panel gives an overview on event rules set on the CMS server. Go to **Setup** page → **Event** tab → select **All Sources** on the left. As the entire available rules of all NVRs are listed here, you may want to sort out some of them from the long list.

View the Event Rules

To sort by NVR **Source** name or **Event Name**, click the titles to list the entries in ascending or descending alphabetic order.



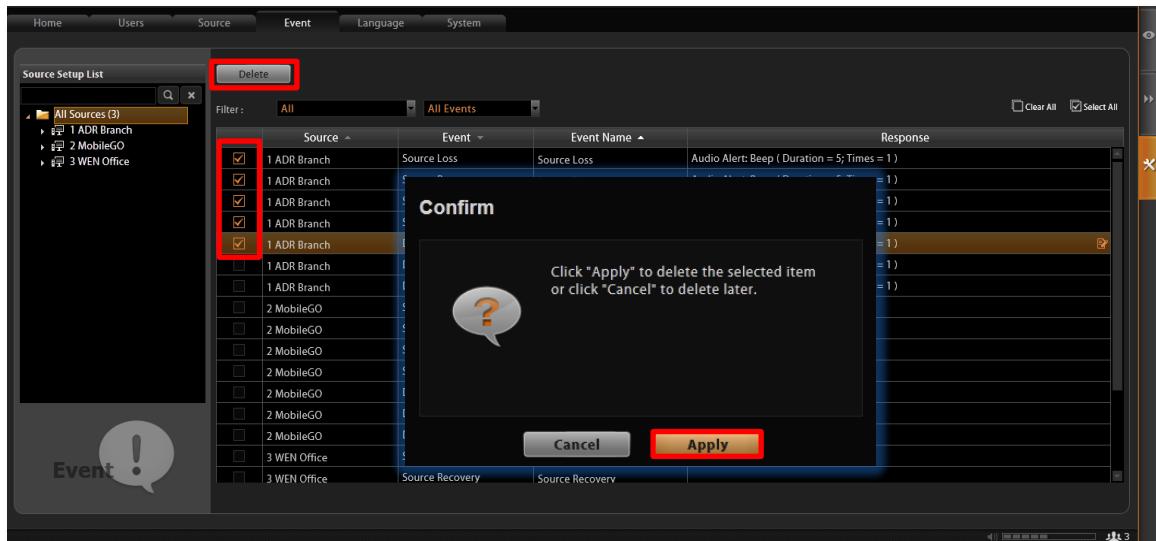
The screenshot shows the CMS 2.0 Source Setup List interface. On the left, there is a tree view under "Source Setup List" showing "All Sources (3)" with three branches: "1 ADR Branch", "2 MobileGO", and "3 WEN Office". Below the tree is a large "Event!" icon. The main area is titled "Source Setup List" and contains a table of event rules. The table has columns: "Source", "Event", "Event Name", and "Response". The "Source" and "Event Name" columns are highlighted with red boxes and arrows pointing to them. The "Event Name" column is sorted in ascending order. The "Response" column lists various audio alert configurations. At the top of the table, there are filters: "Filter: All" and "All Events". To the right of the table are checkboxes for "Clear All" and "Select All".

There are two event filters for you to quickly locate your desired event rule:

| | | |
|----------|--------------------------|-------------------------|
| Filter : | All | All Events |
| | (Edited Status) | (Trigger Type) |
| | Events with Response | Source Status |
| | Events without responses | Schedule Service Status |
| | | Disk Status |

Delete the Event Rules

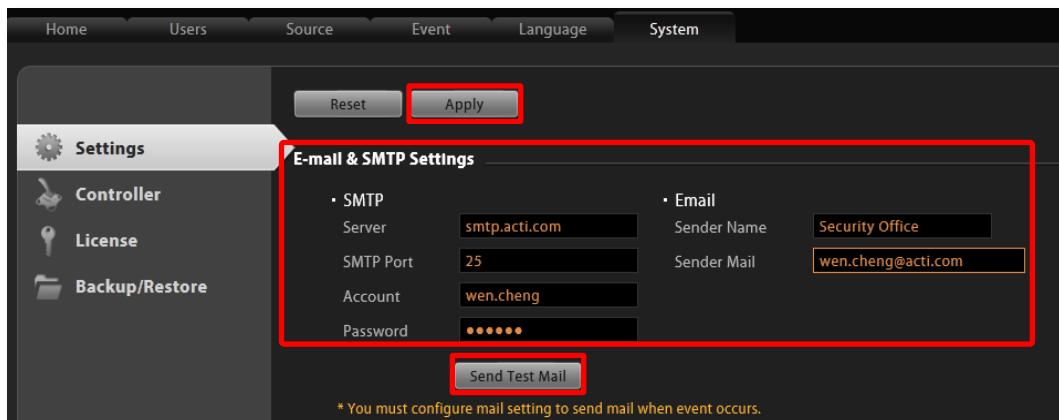
On **Event List**, select the rules you wish to delete, and then click "**Delete**" to clear this rule.



How to Setup SMTP Settings for Event Rules

CMS supports email notification sent through an SMTP server. You can specify the email and server settings here.

1. Go to **Setup** page → **System** tab → **Settings** → **Email& SMTP Settings**.



2. Fill in each of the following fields.

| Field Name | Description |
|------------------|--|
| Server | Input the sender's SMTP server address. Only alphabets, numbers, and the symbols (.), (_), (-) are valid. NVR server <u>does not support the SMTP services with SSL protocol</u> . If you wish to use a free webmail SMTP service, you may choose certain webmail providers such as Yahoo (SMTP: smtp.mail.yahoo.com Port:25) or whose SMTP servers don't require SSL authentication. |
| SMTP Port | Set the SMTP port, allowed value is from 1~65535, default is 25 . |
| Account | Input the name of the SMTP server account. Only alphabets, numbers, and the symbols (@), (.), (_), (-) are valid. |
| Password | Input the password of the SMTP server account. Only alphabets and numbers |

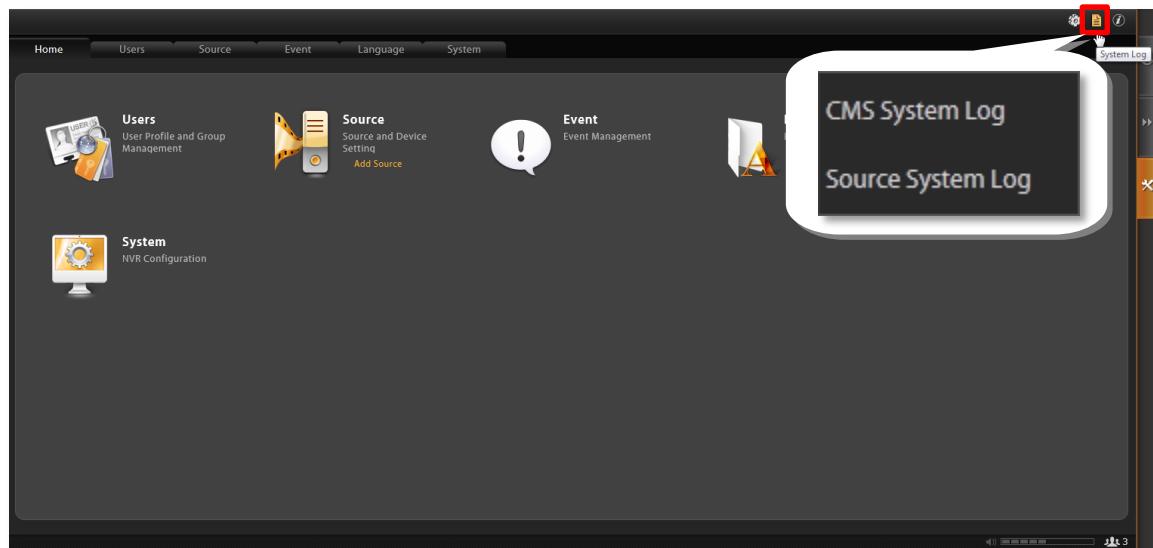
| | |
|-------------|--|
| | are valid. |
| Sender Name | Input the name or title of the sender. You may input a name different from the account name. |
| Sender Mail | Input the sender's email address, should the same account you set for SMTP server. |

3. As all necessary information is filled in, click "**Send Test Mail**" to try sending an email according to your settings, and then log in to your SMTP server to check incoming emails. If the test mail is sent successfully, NVR server is ready to send out emails.
4. As the settings are confirmed, click "**Apply**" to save.

System Log

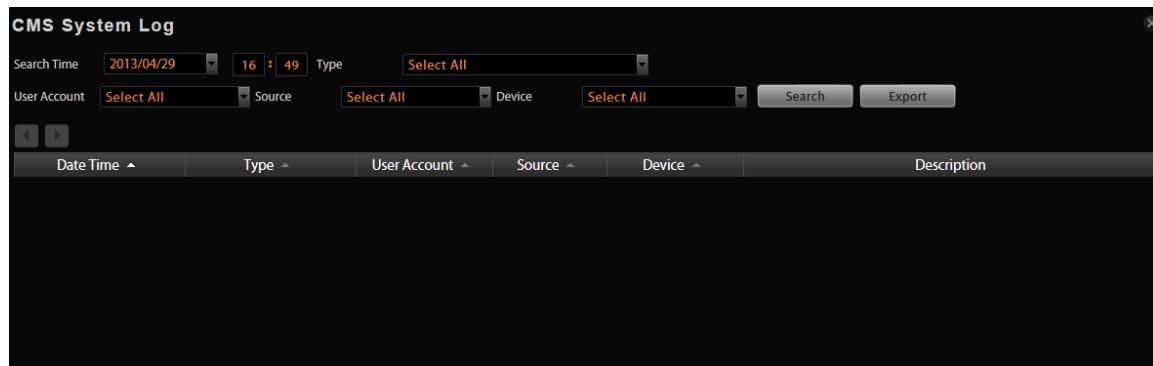
The activities performed by logged-in Users are recorded on server as **System Log**. With the access permission, a user may view, search and export this record for analysis or investigation. This section will provide the instructions on how to read and search data in the system log.

“**System Log**”  is one of the resident buttons on top of CMS server user interface, click it to enter either “**CMS System Log**” or “**NVR Source System Log**”.



CMS System Log

Upon entering the log page, you will be provided with a blank result list. After you define the searching criteria and click “**Search**”, the **CMS System Log** will search the activities performed on CMS.



To start, please define the searching criteria.

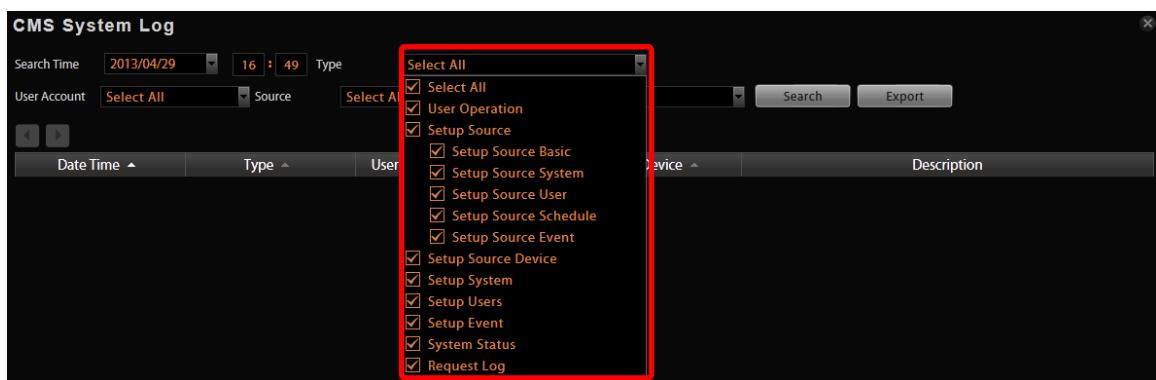
Search Time

Default is your current client time.



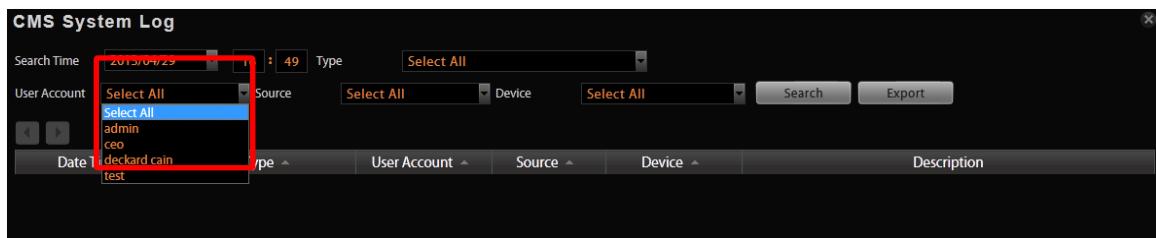
Log Type

You may filter the logs by activity **Type**. By default, all types are selected.



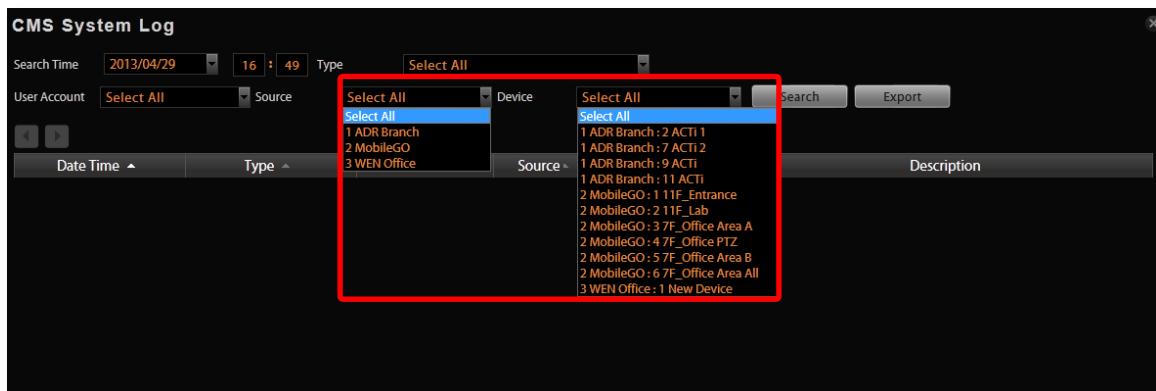
User Account

You may filter the activities performed by a specific user.



NVR Source / Device

You may filter the activities related to a specific NVR or a device.



Read the Log

The search result will show 1000 records before and after your query time. You may click the pagination buttons to navigate earlier or later records. If there is an icon on the top right corner of an entry, click it to view the full description content.

| Date Time | Type | User Account | Source | Device | Description |
|---------------------|-----------------------|--------------|------------|---------------|---|
| 2013/04/25 14:54:29 | Setup Event | admin | 2 MobileGO | 111F_Entrance | SET Source id = 2 Device |
| 2013/04/25 14:54:59 | Setup Source Schedule | admin | 2 MobileGO | 111F_Entrance | SET Source id = 2 Device |
| 2013/04/25 14:55:35 | Setup Source Schedule | admin | 2 MobileGO | 111F_Entrance | SET Source id = 2 Device id = 1 |
| 2013/04/25 14:57:56 | Setup Event | admin | 2 MobileGO | 47F_Off | ScheduleConfig Device PreBuffer = 5 PostBuffer = 30 RecordingKeepDays |
| 2013/04/25 14:59:00 | Setup Source Schedule | admin | 2 MobileGO | 47F_Off | RecordingKeepDays |

A log entry contains several kinds of information including **Date Time**, **Type**, **User Account**, **Source**, **Device** and **Description**. Check **Type** and **Description** fields to know what the user has done or what happened to the whole system. In **Type** field shows what major functions this behavior was involved in, in **Description** field narrates how the change was done (in green font color, uppercase) and the result (in white font color).

Take the case below for example, you can tell that the **admin** user set up an event rule on 2013/4/25 for #1 device(11F_Entrance) on #2 NVR(MobileGo) to trigger a response upon the motion detected in #1 device(11F_Entrance)'s motion region 1.

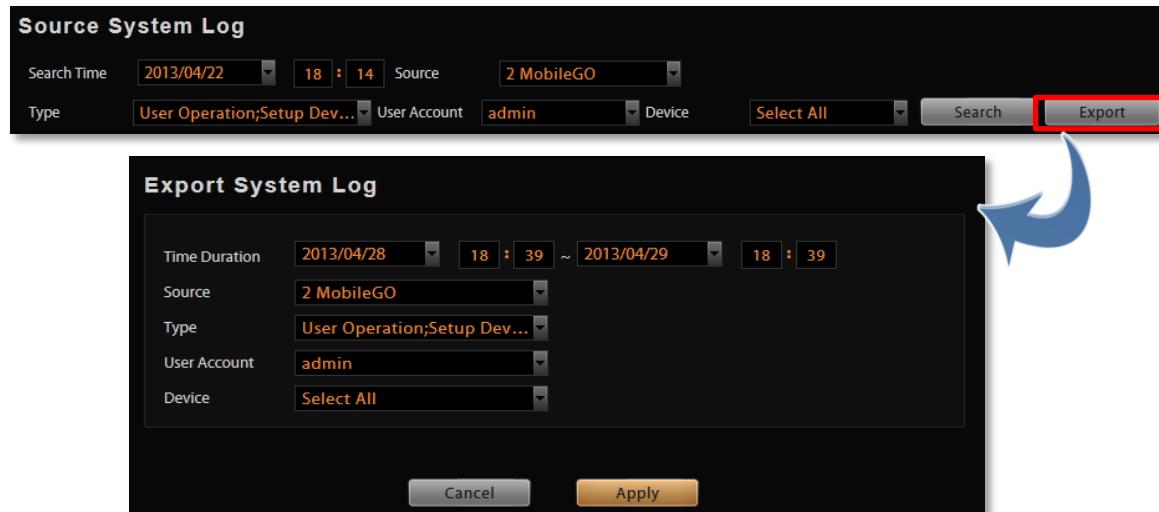
| Date Time | Type | User Account | Source | Device | Description |
|---------------------|-------------|--------------|------------|---------------|--|
| 2013/04/25 14:54:29 | Setup Event | admin | 2 MobileGO | 111F_Entrance | SET Source id = 2 Device id = 1 EventHandleConfig EventHandle Event id = Motion1 |

Note

If the pagination button appears to be disabled, that means no more records are found on CMS server. By default, the server will keep the logs for 30 days. If you wish to adjust the period, please go to **Setup page** → **System tab** → **Settings**, in **System Log Settings** section, key in the value in this field: Keep System Log for (1-999 days) 30

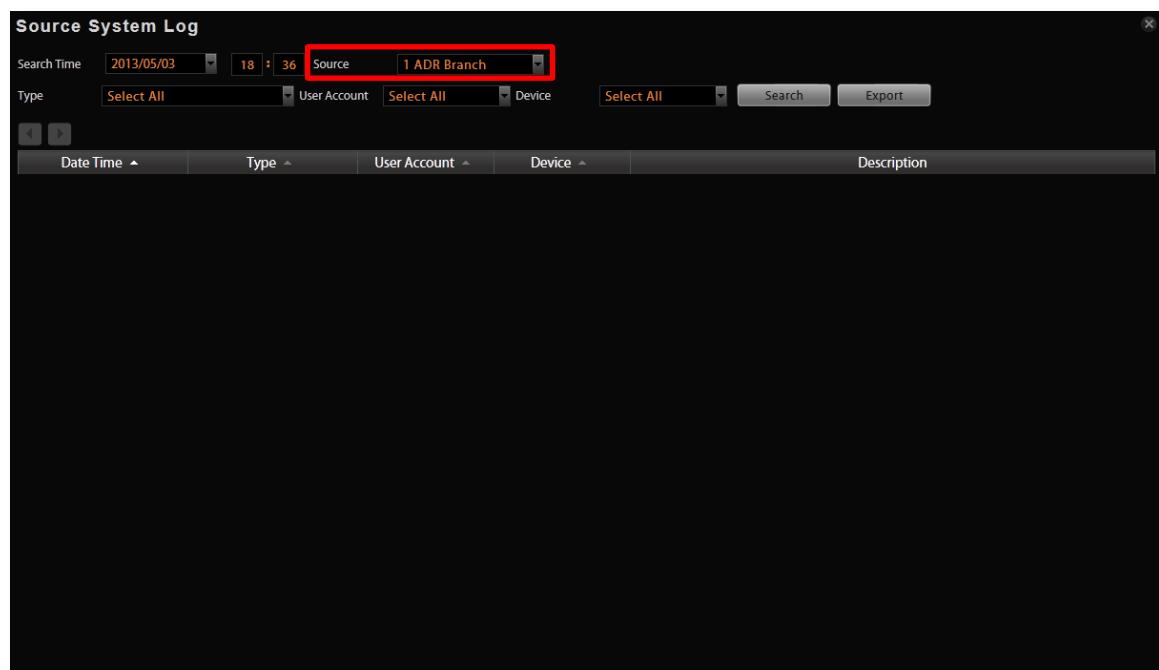
Export the Log

Click “**Export**” button to export the log as .csv file. You can specify the **Time Duration**, **NVR Source**, **User Account** and the involved **Device** of the logs, and click “**Apply**”.



NVR Source System Log

As the CMS administrator owns the same privileges of an NVR administrator, it is able to acquire the NVR system log from CMS interface. Unlike **CMS System Log**, **NVR Source System Log** record an NVR user's activities on NVR. Click , enter **Source System Log**, specify the **NVR Source** name and other criteria, CMS will start searching.



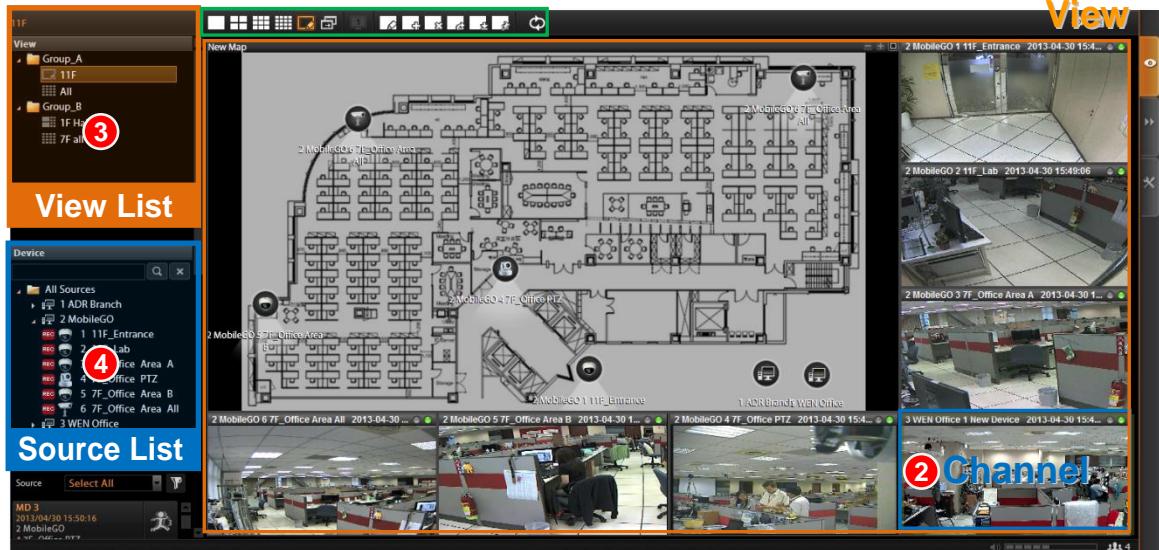
Customize Views

After all the NVR sources are added, you may start customizing the views for different needs. This chapter will teach you how to add video source, arrange the channels and manage live view layouts.

In CMS system, a **View** refers to the layout where the live images of **Cameras** or **Maps** are arranged in proper positions to suit the monitoring purpose. This is very similar to a camera group, which often consists of cameras in the same physical location or with the same device functions. For example, a **View** named **11F Emap & Camera** may contain the 11F floor plan and the cameras actually placed on 11F.

Live View Interface Overview

① View Tool Bar

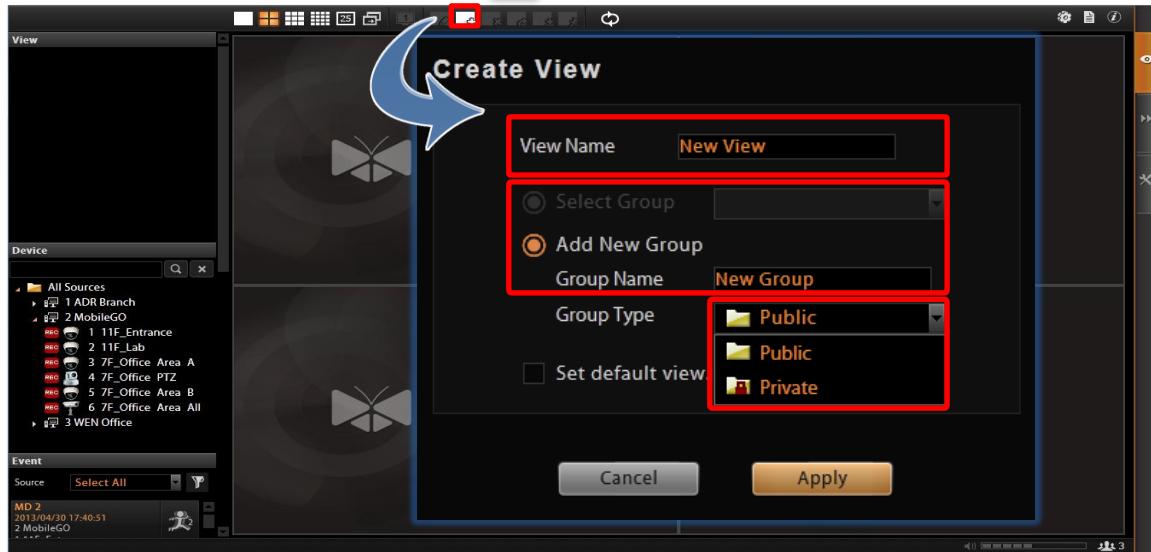


1. **View Tool Bar:** Provides 24 options for layout styles and the functions keys for editing a view.
2. **Channel:** Each channel window may display a camera view or a map. In edit mode, you can adjust the channel size at will.
3. **View List:** All the saved Views are shown here. On **Live View**, you can go to  → **View Manager** to group and manage these views (refer to Manage the Views on page 60).
4. **Source List:** In edit mode, drag a camera from here to your desired channel.

Step 1: Create a New View

On **View Tool Bar**, click the **Create View** button  , input the **View Name**, add a **New Group** for this View and decide whether this group is to be **Public** or **Private**, and then click **“Apply”**.

- The views under **Private View Group**  are only available to the User who created them.
- The views under **Public View Group**  are open to every User.

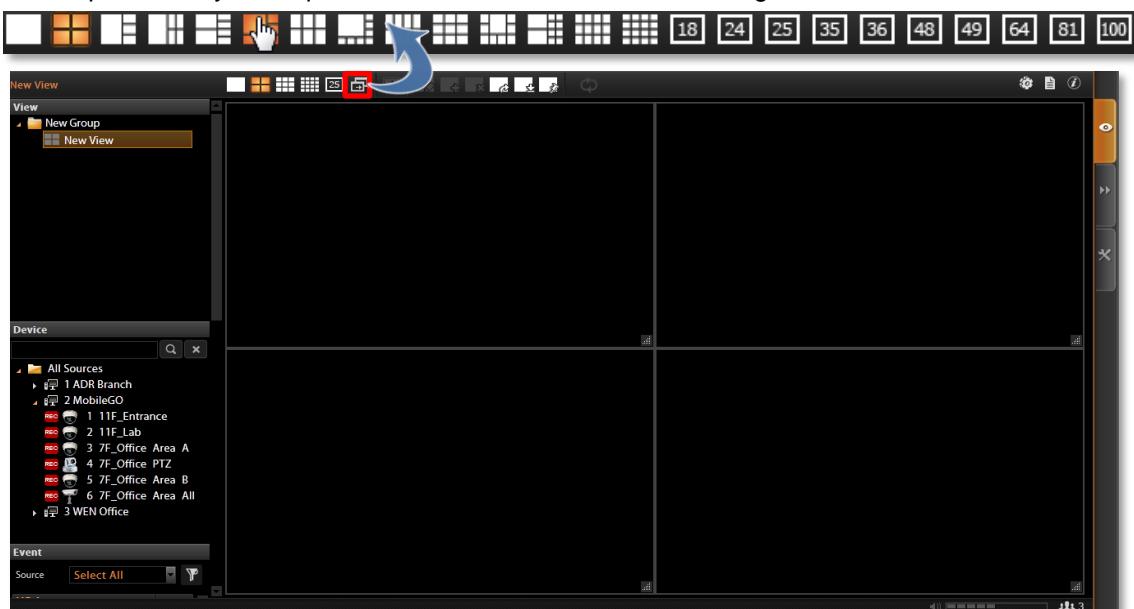


Step 2: Enter Edit Mode

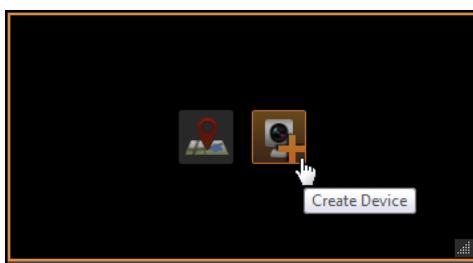
On **View Tool Bar**, click the **Edit View** button  , this view will turn into edit mode. In edit mode, you may add a video source to a channel, and adjust the channel size.

Step 3: Select a Layout

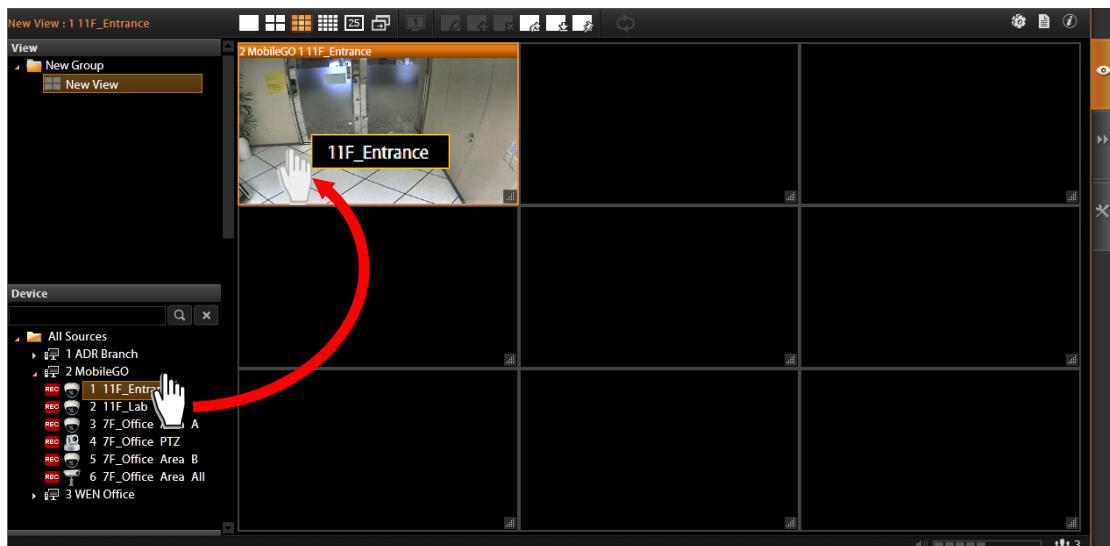
On **View Tool Bar**, click the **Expand** button  for all provided layout styles. Select a layout that is perfect for your required channel number and ideal arrangement.



Step 4: Add Video Source



In edit mode, move the mouse over the channel and click  to select a camera from the source list. You may also directly pull a camera from the **Device** panel to your desired channel.

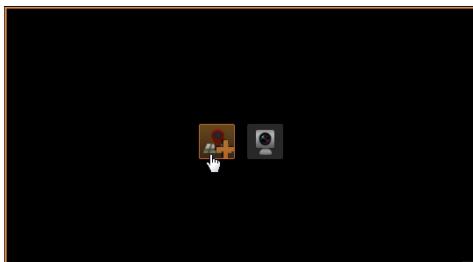


- Remove the camera view: right-click on the channel and elect “Remove”.

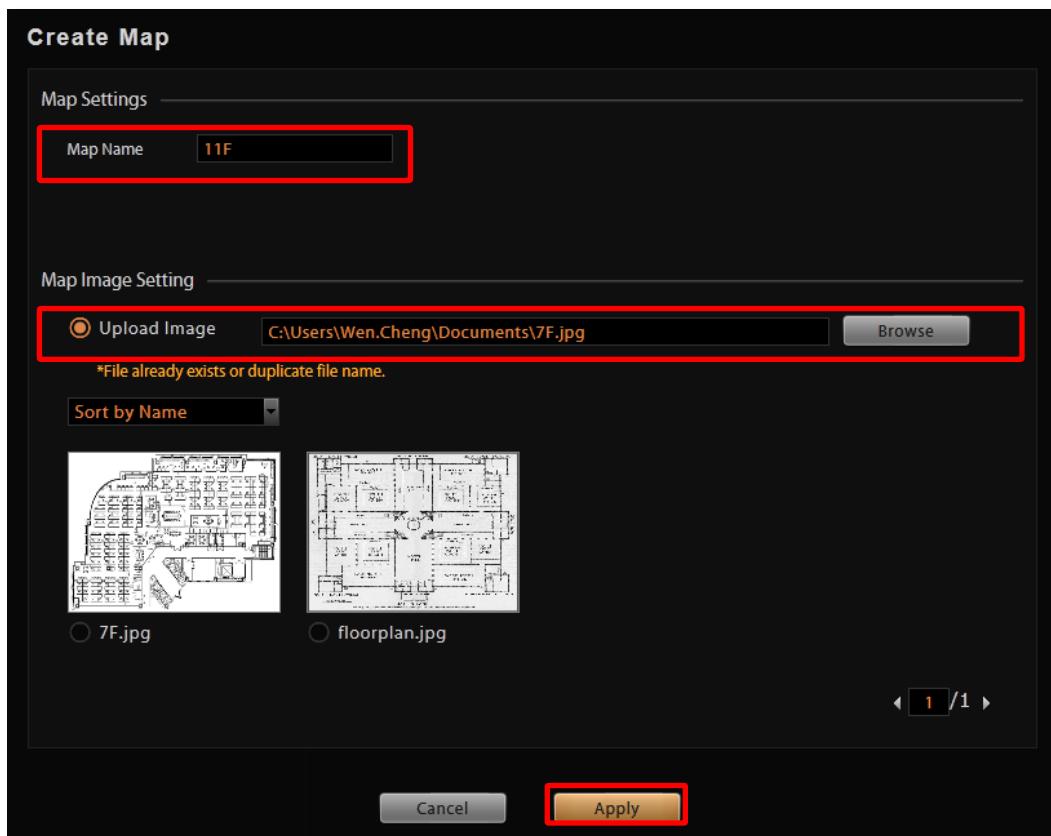


Step 5: Add a Map

By adding a map, you put a picture on the channel, where you may place camera icons later to make it an “e-Map”.



In edit mode, move the mouse over the channel and click  to upload a map. Please input the **Map Name**, select the image location (file format must be JPG) and click “**Apply**”.

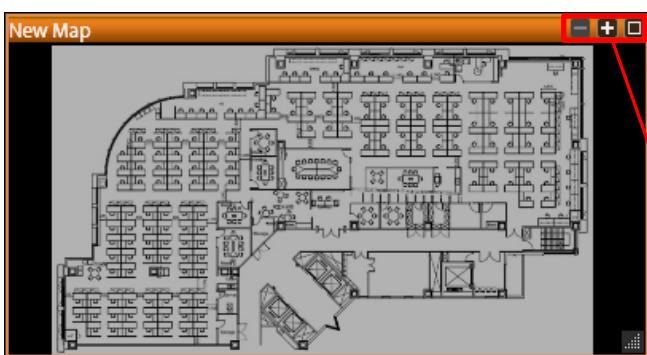


- **Map brightness:**

To change the map brightness, right-click on the map, select “**Map Mask**” and the brightness percentage level.



- **Map size:**



By default, the map will be displayed in its original size. Use the buttons on upper right to adjust the map size.

-  Enlarge to fill channel height
-  Original image size
-  Zoom in
-  Zoom out

- **Edit map title:**

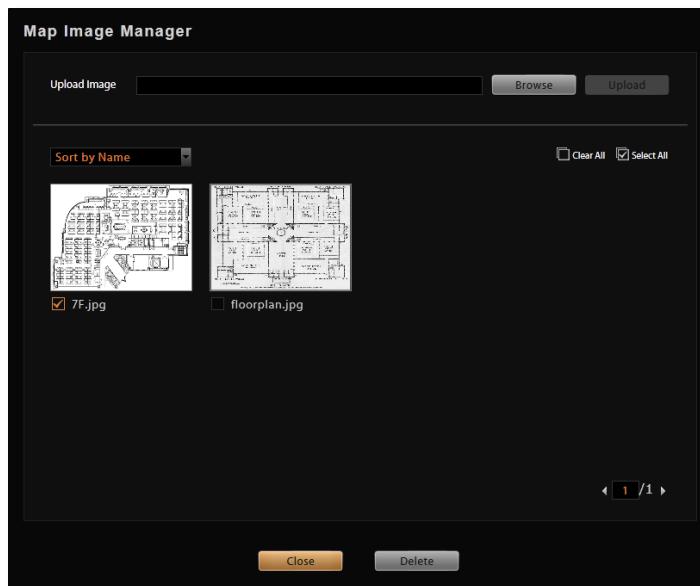
The map title will be shown on channel title bar. In edit mode, right-click on a map channel and select “**Edit Map Information**”

- Remove the whole map:

Right-click on the map and select “Remove”.

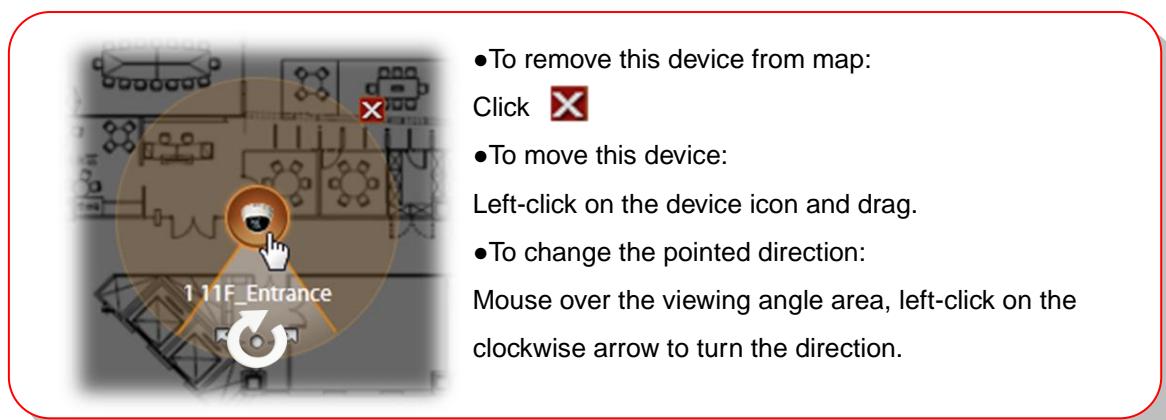
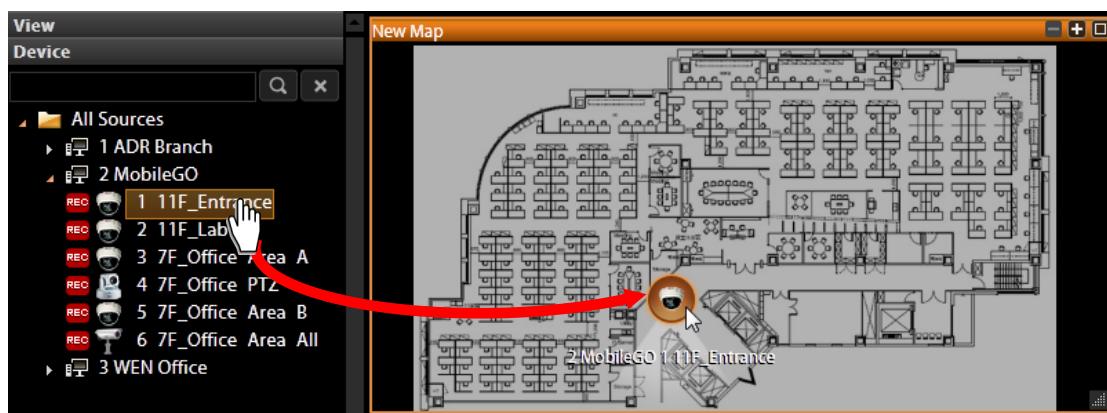
- Manage maps:

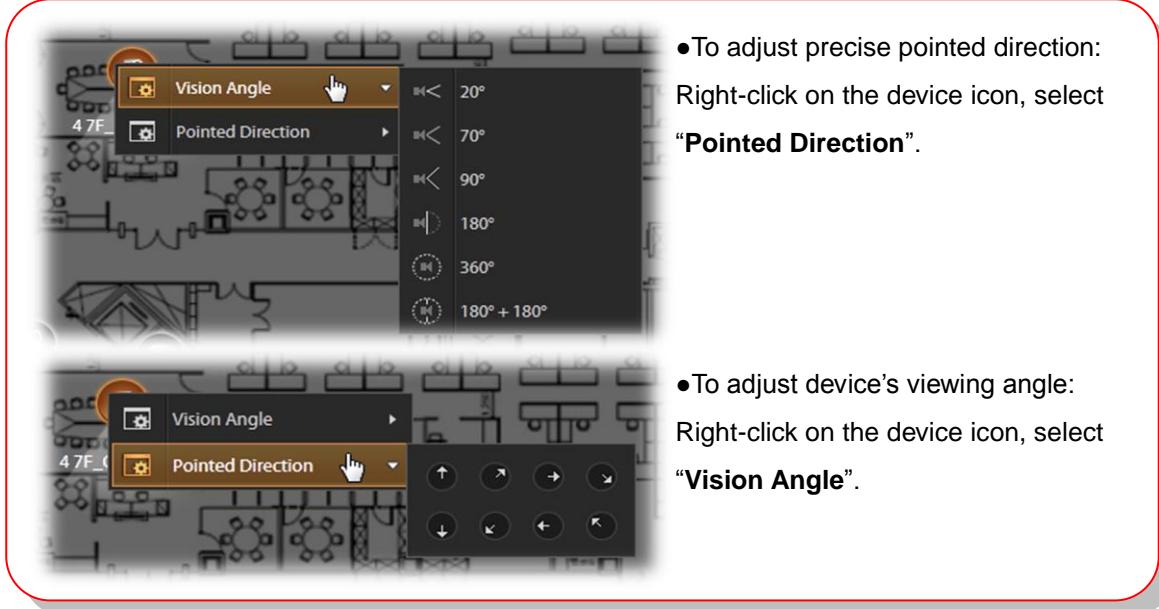
All the uploaded images are managed under **Map Image Manager**. On **Live View** screen, you may go to  → **Map Image Manager** to view, upload or delete the maps.



Step 6: Add Devices to the Map

Pull a device from **Device List** to the map.

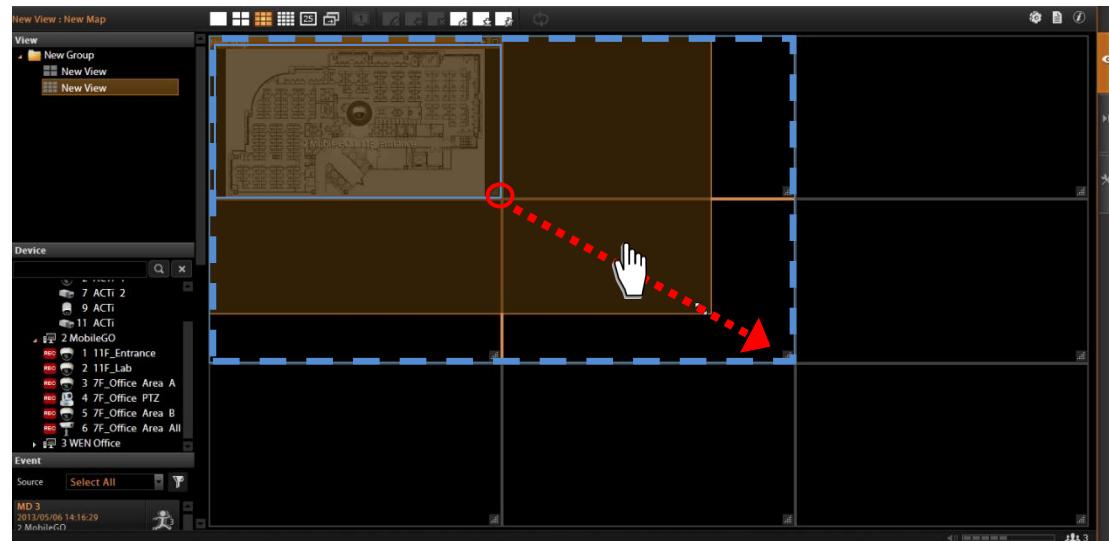




Step 7: Adjust the Channel Size & Layout

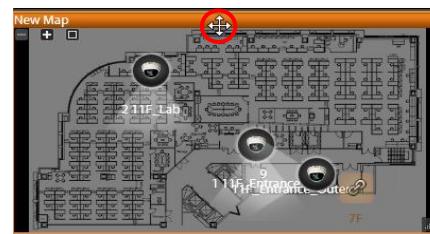
•Adjust the channel size:

Click  on right lower corner of the channel window, drag and then release.



•Switch channel windows:

Click on a channel title until the cross arrow appears, hold it to drag this device or map to your desired channel.



Step 8: Save the View

Click  on View Tool Bar to save it.

Step 9: Set Default View

To set a **View** as default, select it in the **View List** panel and then click  on **View Tool Bar**.

By next time you log in, you will directly enter this View.

Set Default Hotspot Channel

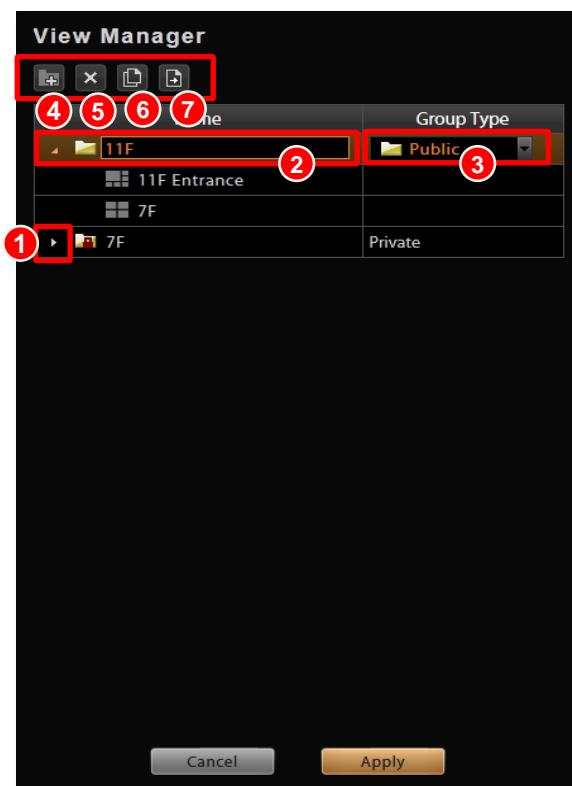
By system default, the global hotspot channel will always be the **top left one**. You can set any other channel on your live view screen to be the default hotspot channel. Right-click on the channel and select “**Default Hotspot**”  , then click  on **View Tool Bar** to save it.

Manage the Views

Each View belongs to a specific **View Group**. With the group management, CMS makes it easy to deal with Views you created for multiple Users.

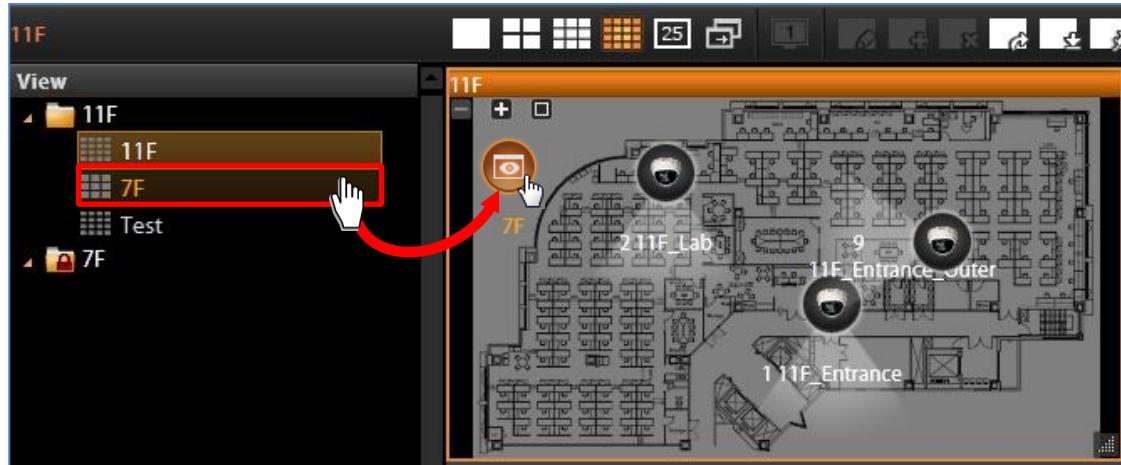
After you created and saved the Views on **Live View** screen, click  → **View Manager**.

- ① Click on the arrow icon in front of a group folder to reveal its **Views**.
- ② By selecting a **View**, you may directly modify its name in **Name** field.
- ③ You may change a group's **Group Type**. Upon the change, for example, by changing a group from “**Private**” to “**Public**”, all the views belonging to it will be open to every User.
- ④ Click this icon to add a new group. 
- ⑤ Click this icon to delete a selected group.
- ⑥ Click this icon to copy a selected group to another group.
- ⑦ Click this icon to move a selected group to another group.



Set View Link

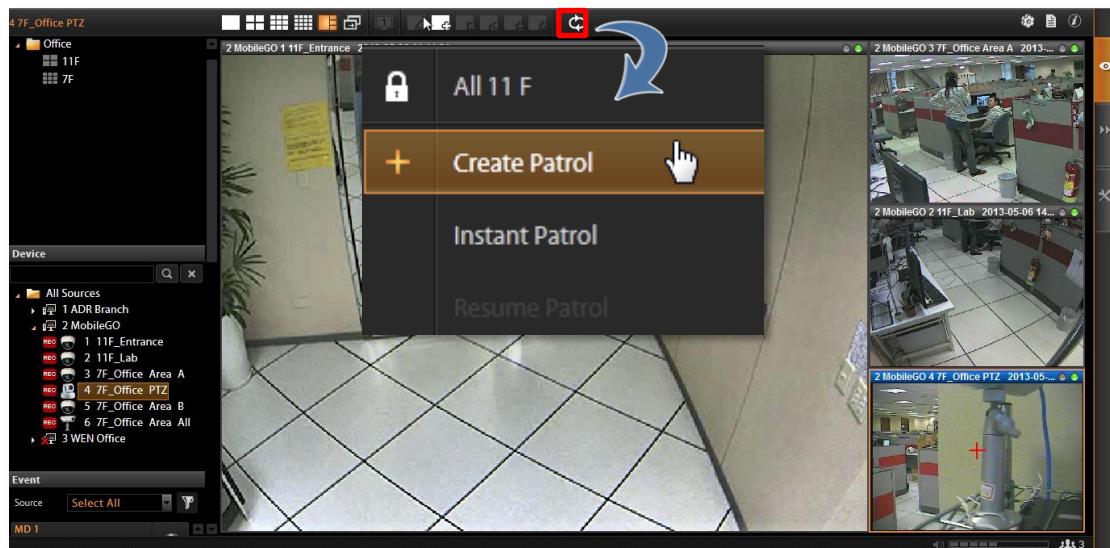
By creating a link button on a view, you can directly be linked to another specific view. On the picture below shows how to create a link button  to 7F View on 11F View.



1. Select a View, on which you will place a link button to another view.
2. Click  on **View Tool Bar** to enter edit mode.
3. From **View List**, drag the target View to current View, a link button will appear.
4. Click  on **View Tool Bar** to save it.

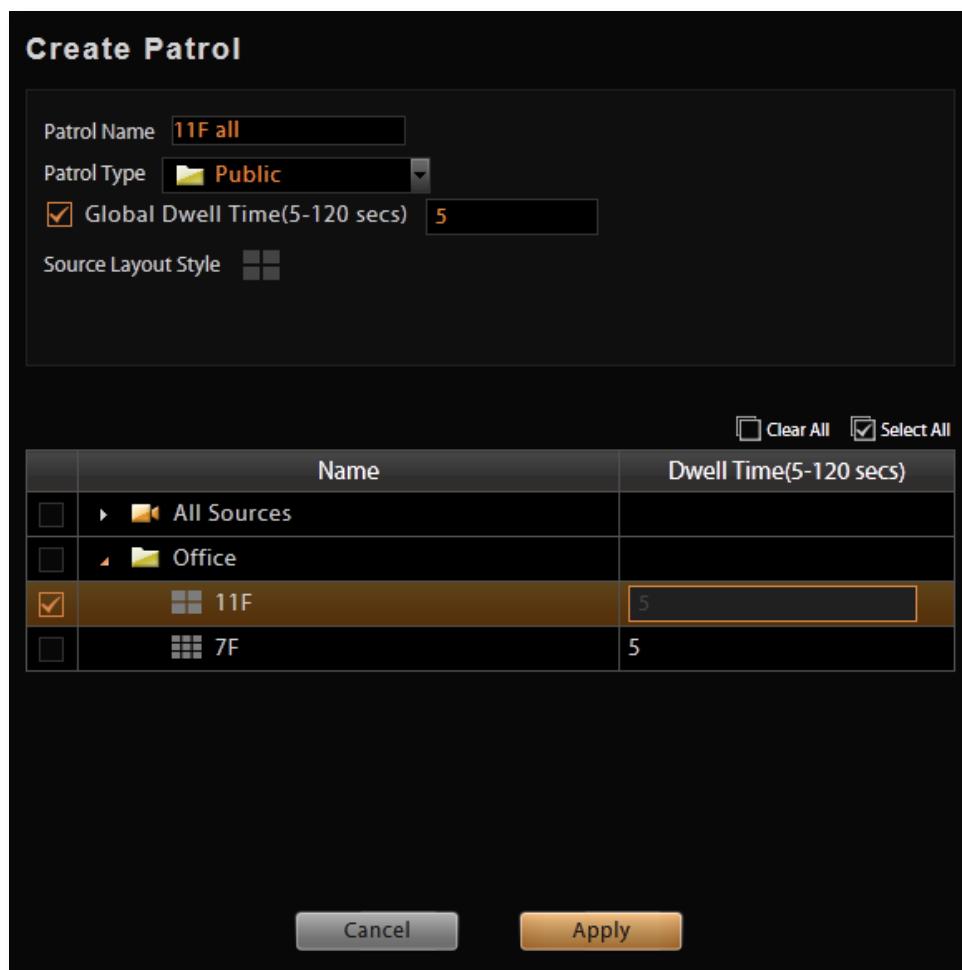
Set View Patrol

You may have the saved Views patrol in turns. In this way, the views in different area in your site may cycle through themselves for you automatically.

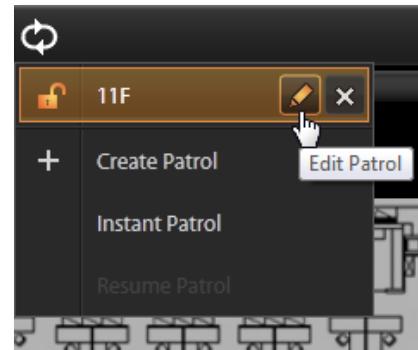


On **View Tool Bar**, click  then **Create Patrol**.

1. Input the **Patrol Name**.
2. Select the **Patrol Type** to be open to all Users or to the creator only.
3. Define the **Global Dwell Time** between the views. If you want to set different dwell time length for individual Views, do not check this option, and configure them separately in below table.
4. Choose the **Views** to display in patrol. If you select the **All Sources** group, you will also need to select “**Source Layout Style**” for it.
5. Click “**Apply**” to save the settings.



6. The saved patrols will be shown on the patrol list after you click  on **View Tool Bar**, you may delete and edit a saved patrol or select it to start patrolling.



Let Windows Automatically Starts up CMS Live View

You may have the CMS client application automatically run and open the live view after Windows starts. In this way, you may save steps and time before you eventually see the desired live view screen. Additionally, whenever a power breakdown takes place, the live view may recover as soon as your computer resumes.

If more than one users would log in to this computer, this tip might not be suitable due to account security issues.

1. On CMS server, set a **Default View** for your account. For detailed procedures, please refer to this section in this manual: [Customize Views](#) on page 54.
2. Set **Auto-login** for your Workstation client or web browser client. For detailed procedures, please refer to this section in this manual: [Set Auto Login](#) on page 29.
3. If you are using a browser client, open the browser, and set the CMS server ip as default homepage.
4. Set your browser or Workstation application to start right after Windows has started. Click **Windows Start** → **Programs** → **Startup** to open the **Startup** folder, and drag the application shortcut into it. In your case, you will have to drag the Internet Explorer shortcut or CMS2Workstation shortcut into the **Startup** folder.
5. The next time you start Windows, CMS live view will be running automatically, and you may start monitoring the system in no time.

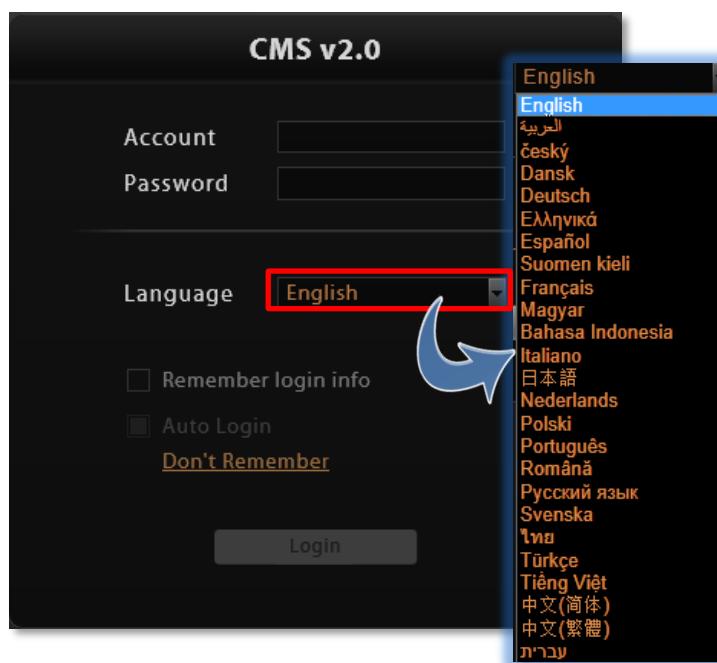


Customize System Language

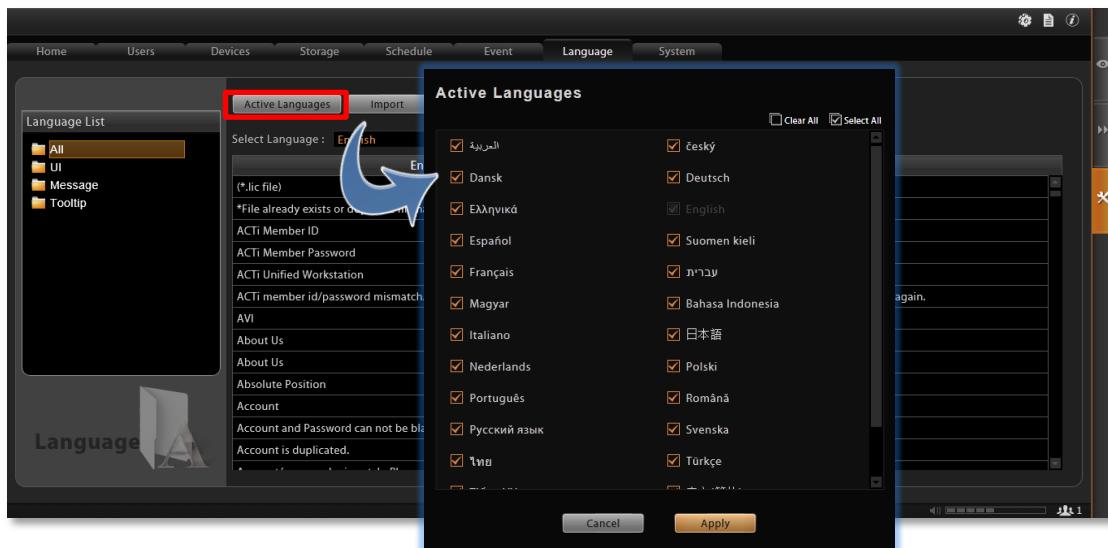
NVR server supports multiple languages for user interface display. There are already **10** translated language files in the server system. Each language is open to customization based on your own needs. This section will describe how to choose or customize language strings for your site.

Login Screen the Languages List

You may decide which languages to be selectable on Login screen. The chosen languages will appear on the “Language” dropdown list.



Go to **Setup** page →**Language** tab, click “**Active Languages**”. On popup window, check the languages you need, and click “**Apply**”. By default, all languages are selected. As **English** and **Traditional Chinese** are the default system language, they are not removable from this list.

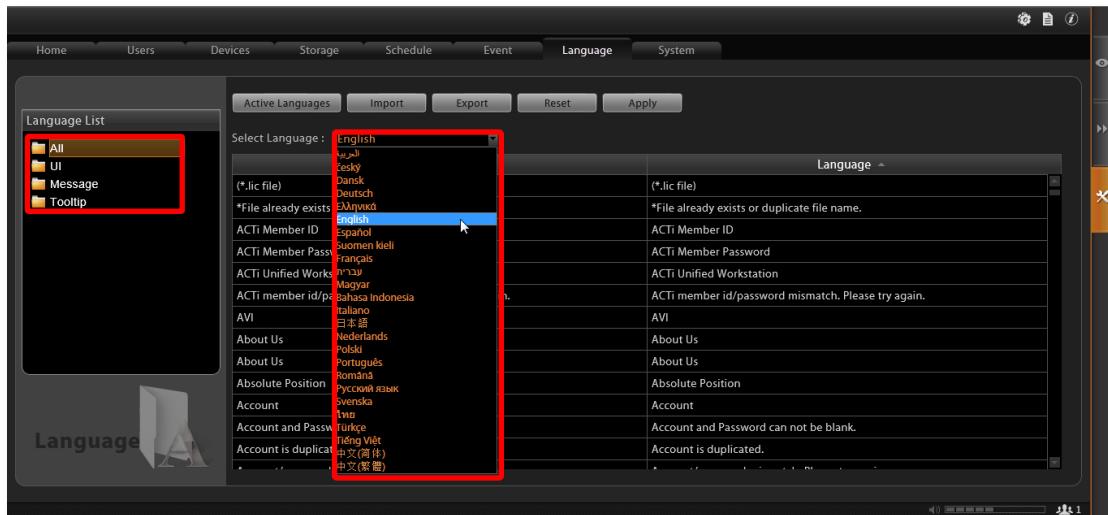


Edit User Interface Wordings

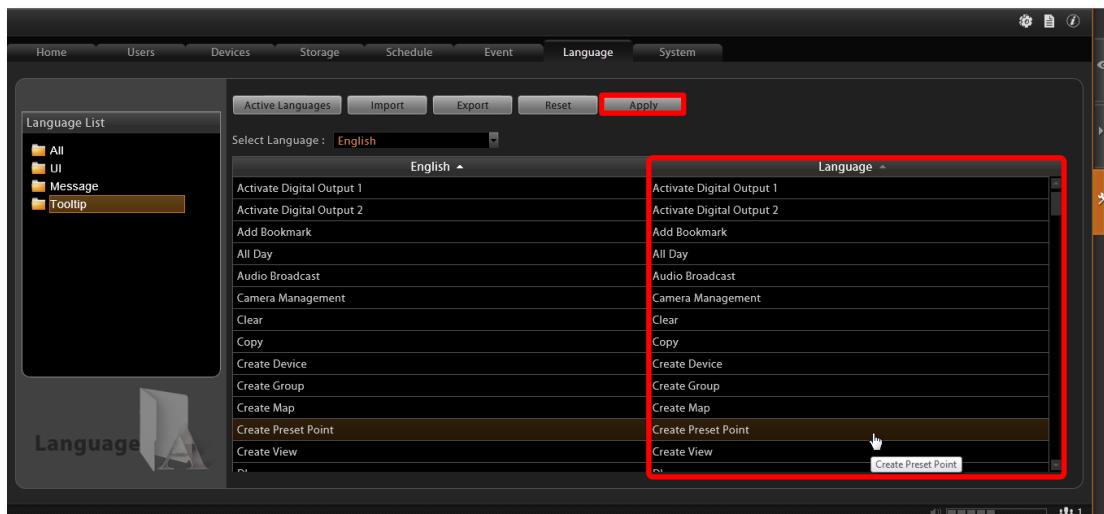
Each language file contains four editable string tables. Each table displays the default wordings in English and the translation in target language.

To view the string table:

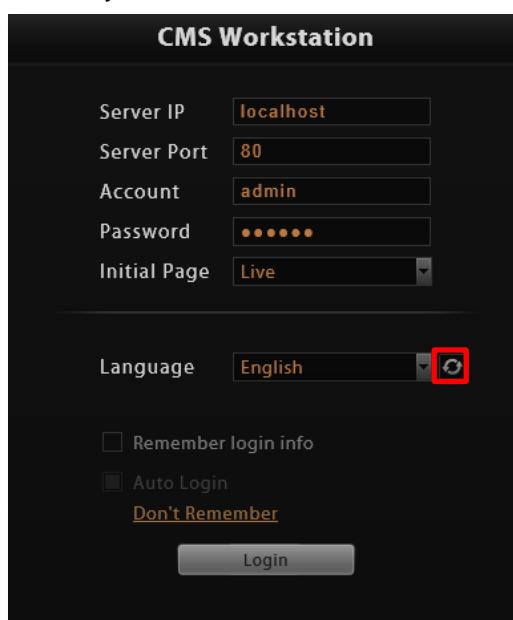
1. Select the language from “Select Language” dropdown list, then select a table from the “Language Group” list on the left column.



2. Your target language will be displayed on the right column, while the default system language “English” appears on the left for reference. Click in any field on right column to customize your desired wordings, and click “Apply” to overwrite the current.

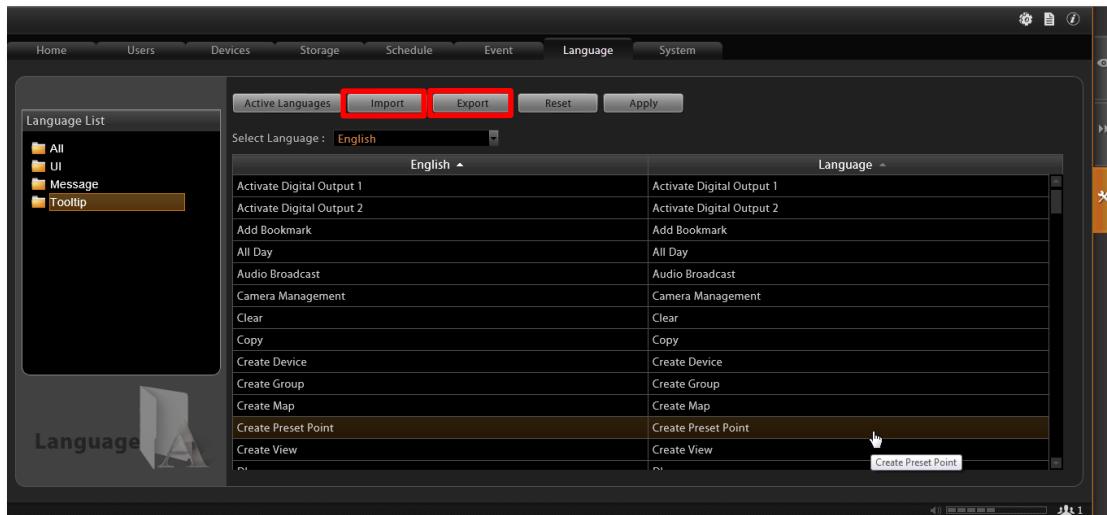


The new string will be applied by next time you log in. If you log in as an **CMS2 Workstation client**, please press  button on **Login** page to synchronize with the latest modified language file, then log in to the system.



Export / Import Language String File

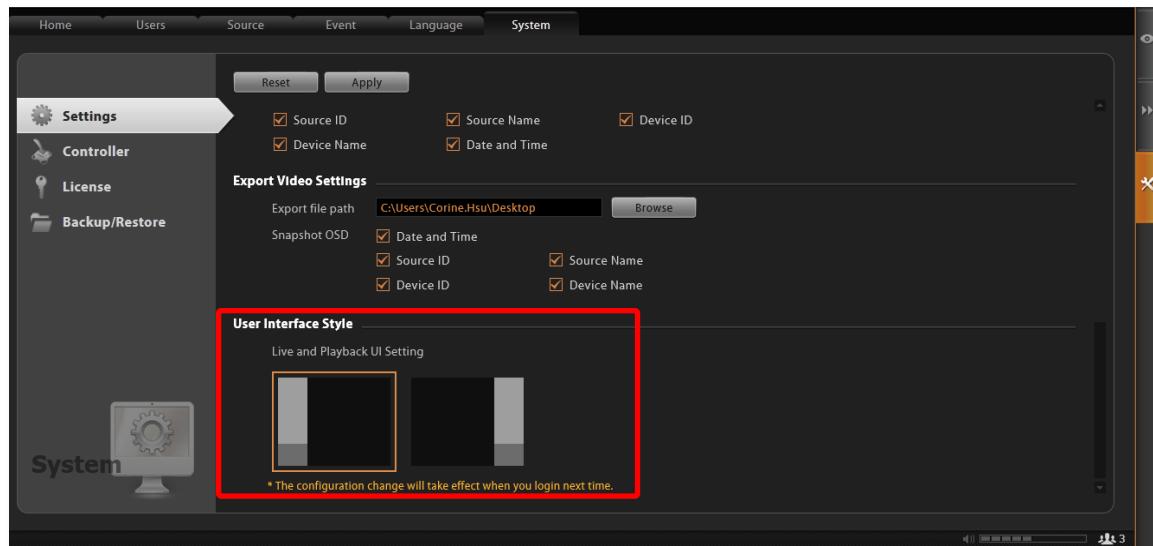
You may also click “**Export**” to export the language file as .xml format to edit in **Notepad**, or “**Import**” to import a language file to use in the system.



In general, it is suggested that you always save a modified language table with a different file name in a location other than default system language folder on server computer *C:\Program Files\ACTi Corporation\CMS2\Language*, then import it to use. In this way, you can avoid overwriting the original language file.

Display Configurations

You can change the user interface style by arranging the main screen and **Panel/Device List** on the right or left. Go to **Setup** page→**System** tab→**Settings**, scroll down to the **User Interface Style** section, select the setting style then click “**Apply**”. The change will be applied upon your next login.

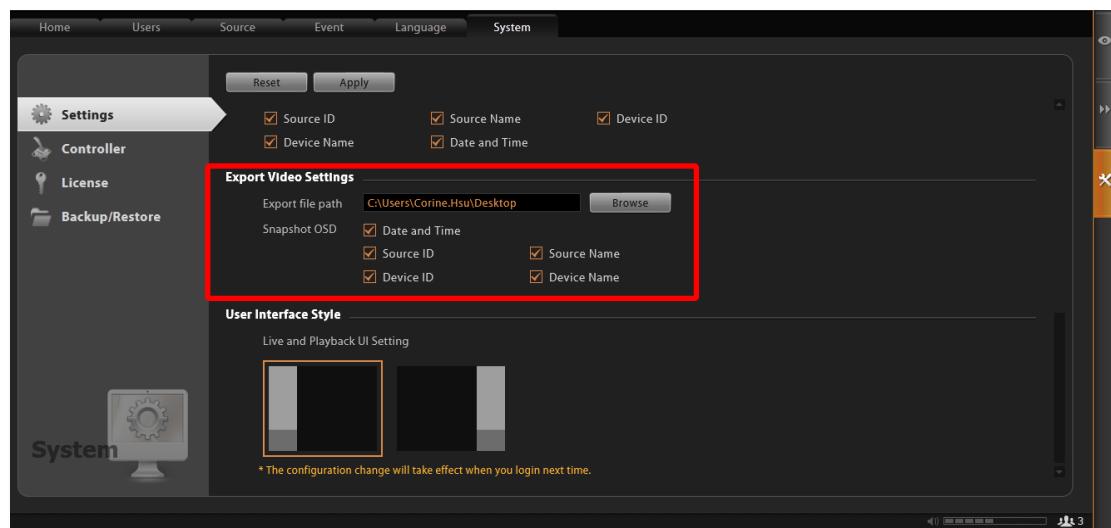


Video & Snapshot Export Configurations

The snapshots taken by Users on **Live View** and all exported video files are saved to a default file location the default location will be the connect client's computer Desktop. You may configure the destination. Go to **Setup** page→**System** tab→**Settings**, in **Export Video Settings** section, click “**Browse**” to choose the Export file path.

You may also define what information is printed on each snapshot by checking the items: **Date and time**, **Source ID**, **Device ID**, **Source Name** and **Device Name**.

These configurations will take place after you click “**Apply**”.



Joystick

On CMS, other than user interface PTZ panel and mouse operation, you may also control the PTZ movements by physical controllers. NVR 3.0 supports two types of controllers, which both feature in a joystick and twelve buttons for users to assign specific actions.



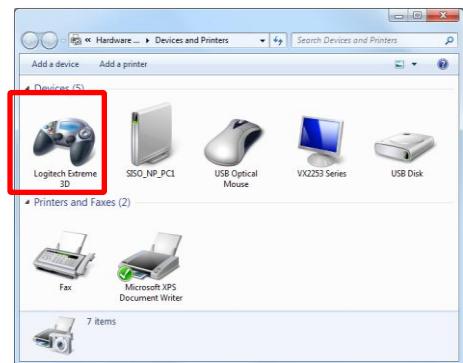
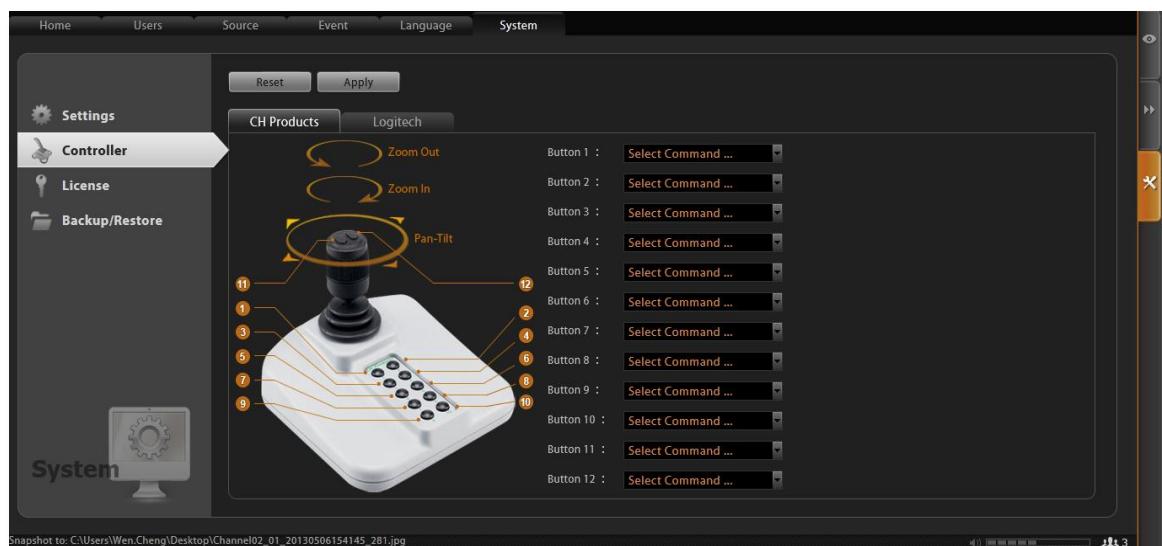
Model: **IP Desktop**
 Manufacturer: CH Products



Model: **Extreme™ 3D Pro**
 Manufacturer: Logitech

How to Install the Joystick

1. Log out from NVR server.
2. Connect the controller device to your computer. To make sure the device is installed properly, open **Windows Start menu** and enter **Devices and Printers** to check the status.
3. Log in to CMS server, go to **Setup** page → **System** tab, enter “**Controller**” section and select your product.
4. You may assign specific commands from dropdown list to buttons 1~12 of the controller. When setting is done, click “**Apply**”. The modification you did on one controller model will be applied to the other joystick model as well.

| Button | Action |
|--------|----------|
| 1 | Zoom Out |
| 2 | Zoom In |
| 3 | Pan-Tilt |
| 4 | |
| 5 | |
| 6 | |
| 7 | |
| 8 | |
| 9 | |
| 10 | |
| 11 | |
| 12 | |

5. To validate its function, go to **Live View** page and focus on a PTZ device channel to operate the supported PTZ operations.

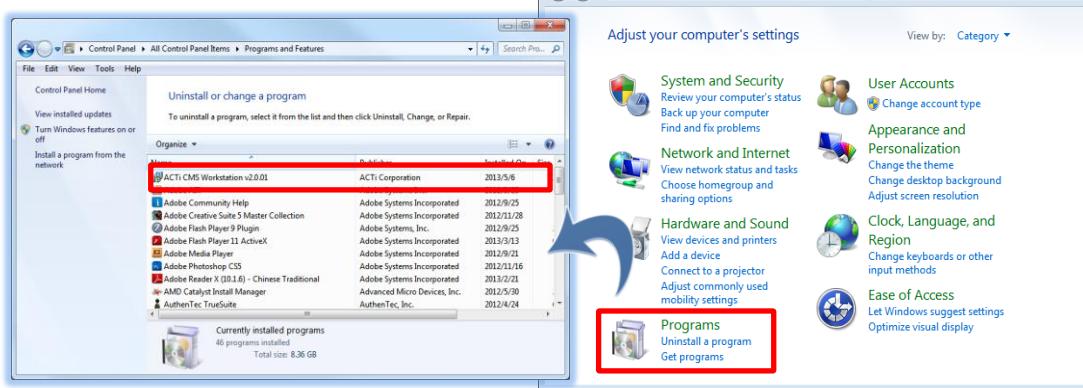
Un-install Server Software

In certain cases, un-installation of CMS system is necessary, for example, (1) you want to terminate CMS server and clear all the evidence due to privacy and security reasons, (2) you need to reinstall the system due to an unsuccessful installation.

Before starting un-installation, **please back up important data** (please refer to [Back up System Data](#) on page 73) first and prepare the CMS server install shield application. This chapter will describe un-installation process.

Step 1: Remove CMS Server Program

1. Go to **Windows Control Panel**→ **Add/Remove Programs** (in Windows Server 2003/Windows XP) or **Programs**→ **Programs and Features** (in Windows Vista/Windows 7/Windows 2008) to remove it. When you un-install NVR server program, the web client will be terminated at the same time.



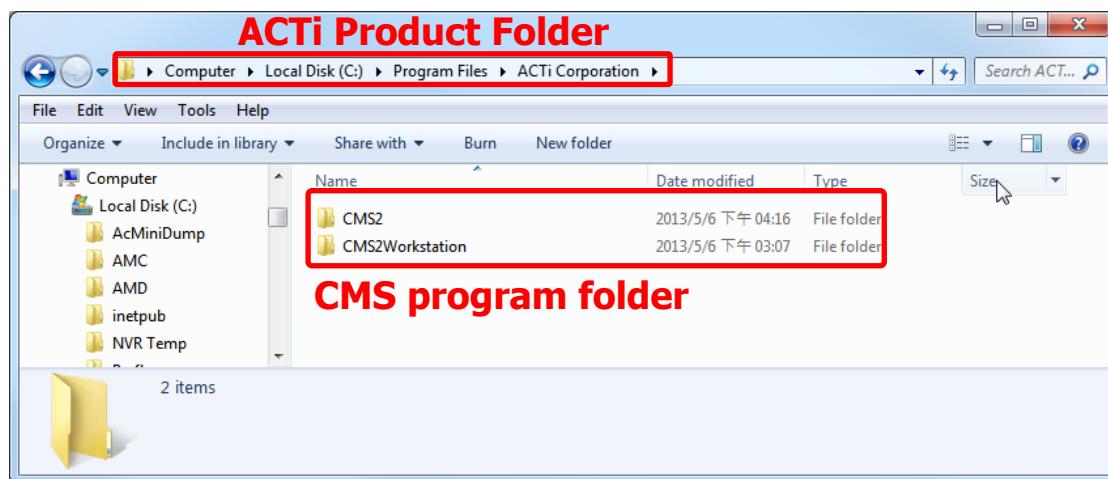
2. After you choose to uninstall “**ACTi CMS Server v2.0.01**” program, the uninstallshield will execute and notify you when it is completed.



Step 2: Remove CMS Server Program Folder (Optional)

If you are performing a complete un-installation without leaving any CMS server related data on the current computer, you may consider deleting this folder.

After un-installation, the **CMS** system folder will remain under ACTi product folder **ACTi Corporation** on your hard drive, the system configuration data here will not be removed until you delete them manually. By default, the path of **CMS** system folder is *C:\Program Files\ACTi Corporation*.



However, keeping this folder is convenient for a un-installation followed by an instant re-installation, for the previous system settings can directly be applied to the new server.

Back up System Data

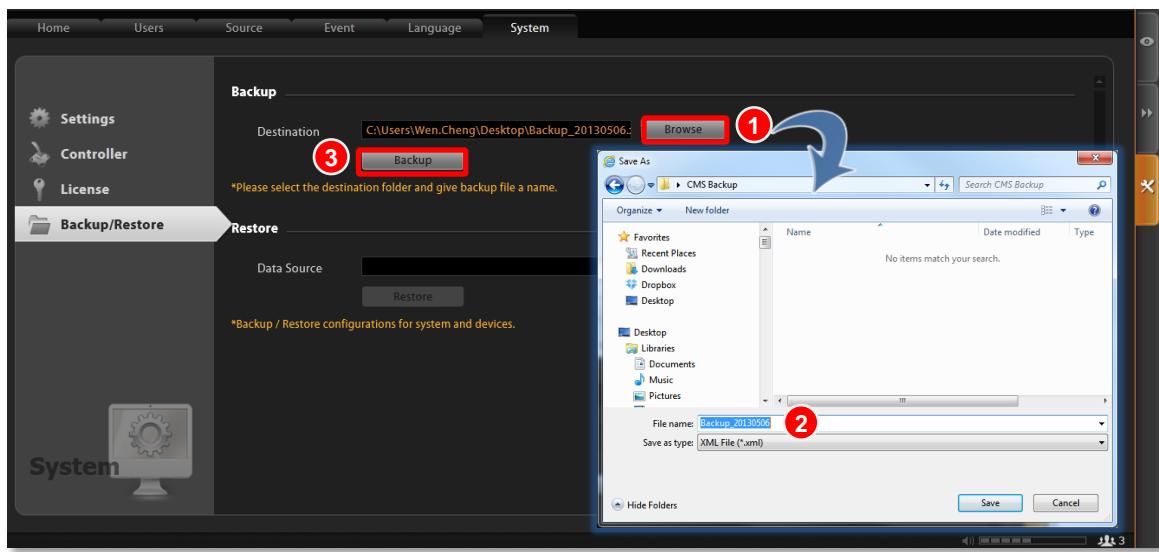
Making regular system backups is always recommended in case of unexpected disasters or accidents that may damage CMS server. Other than this, you may need to perform an on-demand backing up to (1) migrate the whole CMS server data to another computer, or (2) re-install the CMS server on current computer. There are several types of data on CMS server essential to your surveillance system please consider your purpose and follow the below instructions to create their backups.

CMS Settings Backup

CMS server can create a backup file of the whole system settings within one click. The settings being backed up include the following properties you set for system: (1) **Users** (2) Imported **NVR Source & Device** properties (3)**Event Rules** (4) **System → Settings / User Interface Style / Joystick**, and (7) the saved **Views** in **Live View** page.

Step 1: Back up CMS System Settings

1. Go to **Setup** page → **System** tab → **Backup / Restore**
2. In **Backup** section, click “**Browse**” to select the destination for backup file, the file will be saved as *Backup_YYYYMMDD.xml* file. Then click “**Backup**” to export the file.



Important Notice

The license data is not included in the system backup file. You have to preserve the license key information provided in email or printed card to you after the purchase takes place.

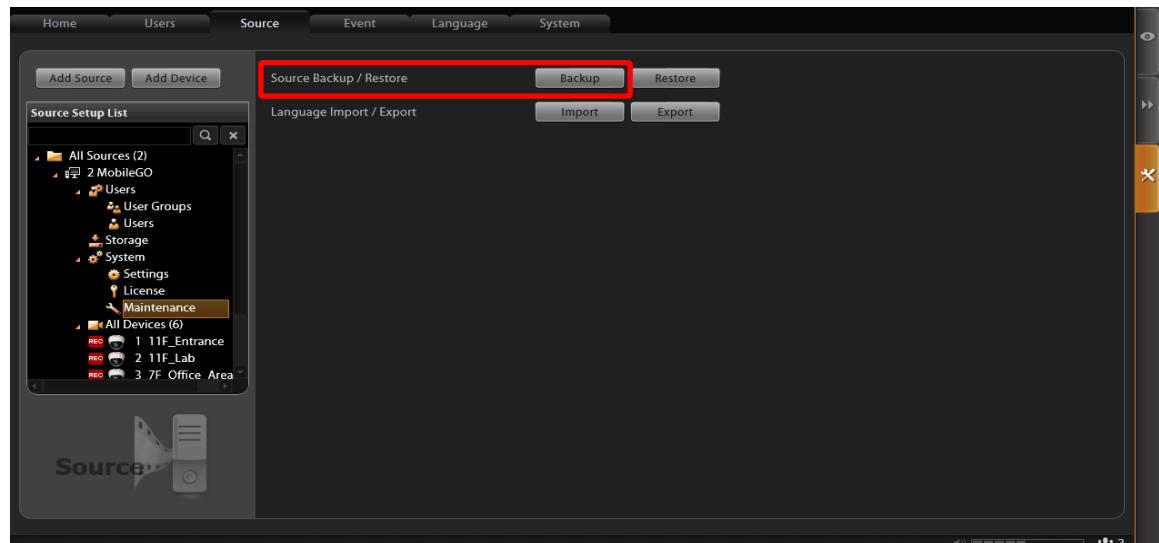
Step 2: Back up CMS System Log (Optional)

The system log records the operations Users perform during logging in to CMS server. You may export the system log of latest three days as *.csv file as backup. Please refer to the section in this manual: [Export the Log](#) on page 53 for instructions.

Step 3: Back up NVR Source Backup (Optional)

You may also backup individual NVR's system on **Setup** page → **System** tab→**Source** tab. This backup file is the same with that made on the NVR interface, which contains the entire system setting of an NVR serve and its customized Views.

On **Source** tab, select your desired NVR and enter its sub category **Maintenance**. Click “**Backup**”, select a file destination path and click “**Apply**”.



Restore System Data

Before starting restoring the system, make sure you have done the following:

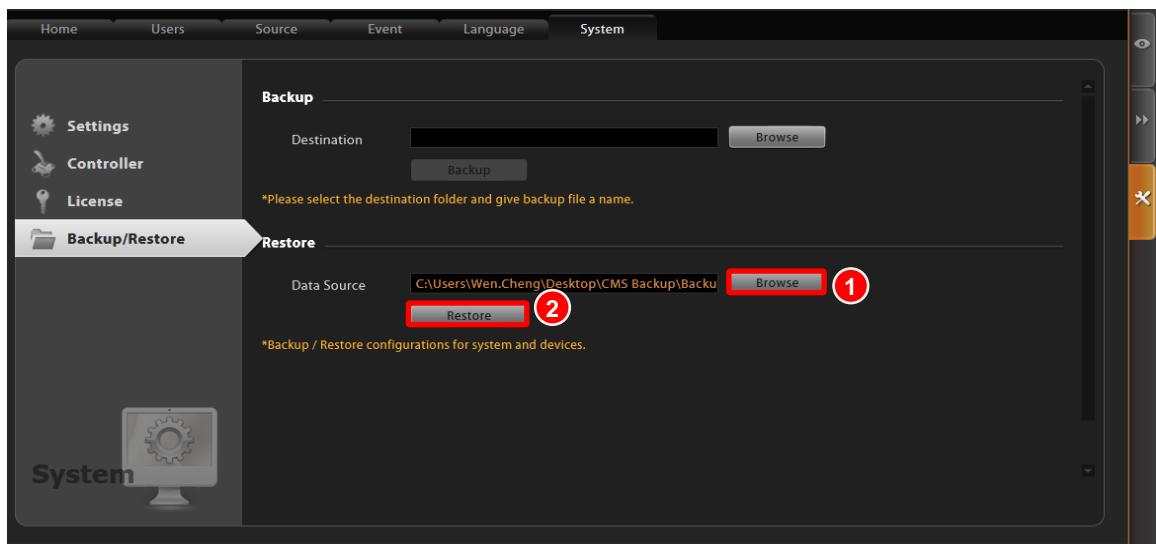
(1) Re-activate the license

If you have activated the CMS licenses then done un-installation previously, please contact **ACTi Customer Help Desk** <http://www.acti.com/CHD> to clear the original registration data in ACTi license database, prepare the license key information for online activation or the activation file(.lic) for offline activation, and follow the instructions How to Activate the Licenses on page 21 to activate your license. The license should be activated before settings are restored so that the licensed channels are ready for recovery.

(2) The backup file(.xml).

To start,

1. Go to **Setup** page → **System** tab → **Backup / Restore**
2. In **Restore** section, Click “**Browse**” to select the backup file, and then click “**Restore**” to start restoring the settings.



3. The restoring process requires logging out of CMS server. After restoring is done, you may log in using your previous user account properties.